



Statement of Enviromental Effects – Change of Use to Support a Dwelling

Client: Jorge Diaz

Site Address: 1808 Windeyer Road, Windeyer

21 May 2025

Our Reference: 46937-PR01_A

© Barnson Pty Ltd 2025. Confidential.

List of Contents

1.0 INTRODUCTION	5
1.1 Background.....	5
1.2 Proponent.....	5
1.3 Consultant	5
2.0 EXISTING ENVIROMENT	6
2.1 Location and Title	6
2.2 Land Use.....	8
2.3 Topography	8
2.4 Flora and Fauna	8
2.5 Natural Hazards	8
2.6 Visual Amenity	8
2.7 Services.....	9
2.8 Access and Traffic	9
2.9 Heritage.....	9
3.0 PROPOSED DEVELOPMENT	10
4.0 LAND ZONING	11
5.0 PLANNING CONSIDERATION	12
5.1 Biodiversity Conservation Act 2016	12
5.1.1 Is the development likely to significantly affect threatened species?	12
5.1.1.1 Section 7.3 Test	12
5.1.1.2 Section 7.4 Test	13
5.1.1.3 Declared Area of Outstanding Biodiversity Value	13
5.1.2 Biodiversity Development Assessment Report.....	13
5.2 Fisheries Management Act 1994.....	13
5.2.1 Applicability	13
5.2.2 Is the development likely to significantly affect threatened species, population, or ecological community?	14
5.3 Environmental Planning & Assessment Act 1979	14
5.3.1 Evaluation	14
5.4 Environmental Planning Instruments.....	15
5.4.1 State Environmental Planning Policies (SEPP)	15
5.2.1.2 SEPP (Sustainable Buildings) 2022	15
5.2.1.3 SEPP (Resilience and Hazards) 2021	15
5.3 Mid-Western Regional Local Environmental Plan 2022	16
5.3.1 Land Use Table.....	16
5.3.2 Clause 4.2A Erection of dwelling houses, dual occupancies and tourist and visitor accommodation on land in certain zones.....	16
5.3.3 6.3 Earthworks	16

5.3.4	Clause 6.9 Essential Services	17
5.4	Draft Environmental Planning Instruments	17
5.5	Mid-Western Regional Council Development Control Plan 2013	17
5.5.1	Introduction	17
5.5.2	Residential Development & Subdivision	17
5.6	Any Planning Agreement entered into	25
5.7	Any Matters Prescribed by the Regulations	25
5.7.1	Introduction	25
5.7.2	Demolition Works	25
5.8	Any Likely Impacts of the Development	25
5.8.1	Context & Setting	25
5.8.2	Access, Transport & Traffic	25
5.8.3	Utilities	25
5.8.4	Air & Microclimate	25
5.8.5	Noise	26
5.8.6	Waste	26
5.8.7	Construction	26
5.8.8	Bushfire	26
5.8.9	Social & Economic Impacts in the Locality	26
5.8.10	Other	26
5.9	Suitability of the Site for the Proposed Development	26
5.10	The Public Interest	26

6 CONCLUSION..... 27

LIST OF FIGURES

Figure 1 – Site Location	6
Figure 2 – Site Aerial	7

List of Plates

Plate 1 - View of existing building	7
Plate 2 - View of Windeyer Road, looking west	8

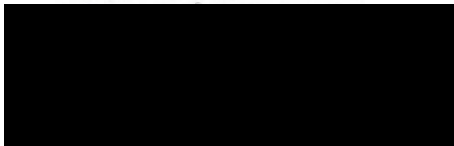
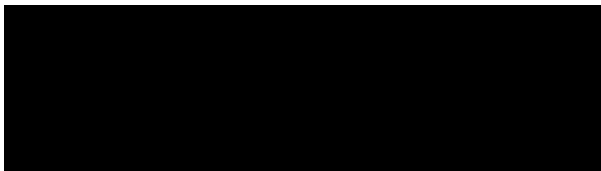
APPENDICES

APPENDIX A	Survey	29
APPENDIX B	AHIMS	30
APPENDIX C	Development Plans	31
APPENDIX D	BASIX	32
APPENDIX E	Onsite Waste Management	33
APPENDIX F	BFAR	34

DISCLAIMER

This report has been prepared solely for Jorge Diaz (the client) in accordance with the scope provided by the client and for the purpose(s) as outlined throughout this report.

Barnson Pty Ltd accepts no liability or responsibility for or in respect of any use or reliance upon this report and its supporting material by anyone other than the client.

Report Title:	Statement of Environmental Effects	
Project Name:	Change of Use to a dwelling	
Project Location:	1808 Windeyer Road, Windeyer, NSW 2850	
Client:	Jorge Diaz	
Project Number:	46937	
Report Reference:	46937-PR01_A	
Revision	Final	
Date:	21/05/2025	
Prepared by:	Reviewed by:	
		
Seb Minehan B. Human Geog UOW, M.Urb. Reg. Plan Town Planner	Jack Massey MPIA Senior Town Planner	

1.0 INTRODUCTION

1.1 Background

Barnson Pty Ltd has been engaged by Jorge Diaz to prepare information in support of a Development Application (DA) for a change of use from a Church to dwelling at Lot 231 DP 1142826, 1808 Windeyer Road, Windeyer NSW 2850.

The existing site is located on the south western side of Windeyer Road and has an area of approximately 6,700m². The site contains an existing building that was used for a Place of Public Worship (Church) and associated water tanks, and a cemetery.

The project shall consist of minor demolition of parts of the existing building, and construction to support a future dwelling and associated structures.

The subject site is zoned RU5 Village pursuant to the provisions under the *Mid-Western Regional Local Environmental Plan 2012* (the LEP). The proposed development is defined as a Change of Use to support a dwelling house, which is permissible with consent in the RU5 Zone.

This application consists of:

- Planning portal lodgement;
- One (1) PDF of this written statement, including plans.

1.2 Proponent

The proponent for the DA is Jorge Diaz.

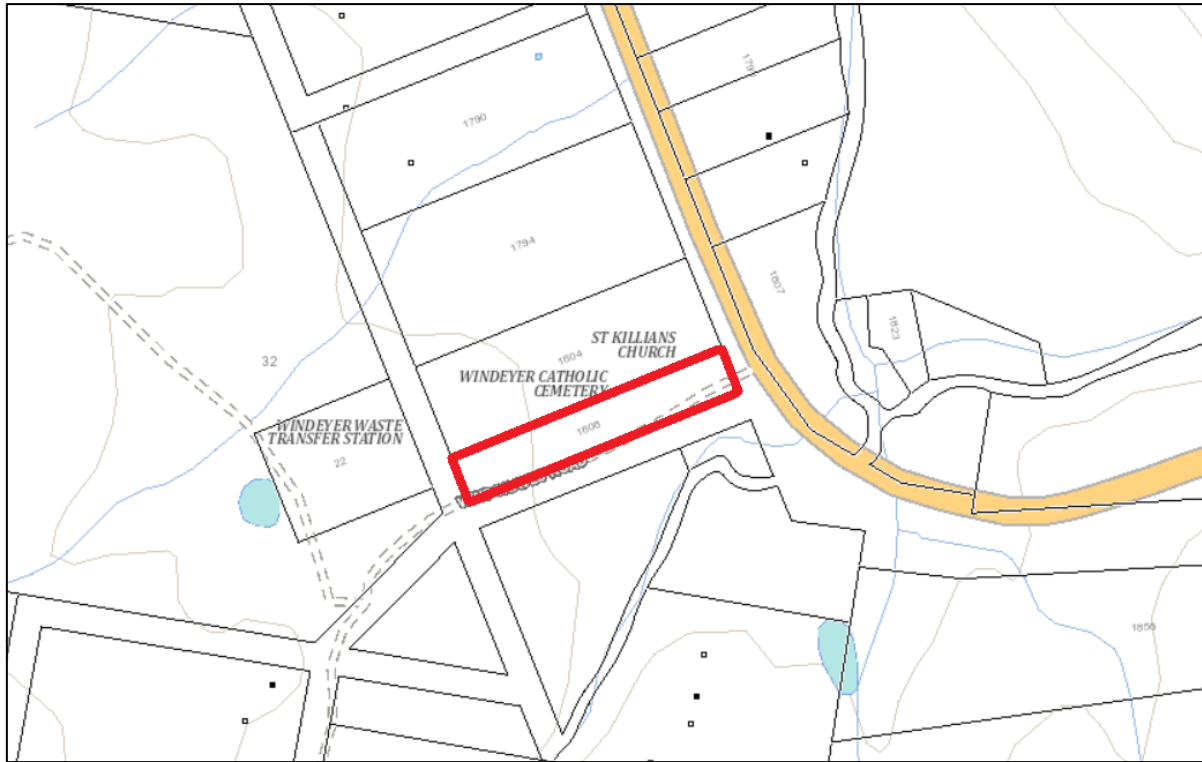
1.3 Consultant

Barnson Pty Ltd
Seb Minehan
Riverview Business Park
Unit 1, 36 Darling Street
Dubbo NSW 2830

2.0 EXISTING ENVIROMENT

2.1 Location and Title

The subject site consists of Lot 231 DP 1142826, commonly known as 1808 Windeyer Road, Windeyer. The site is located approximately 600m west of the Windeyer village centre. Refer to Figure 1 below.



Source: (NSW Government Spatial Services, 2024)

Figure 1 – Site Location

The proposed site area is approximately 6,700m², (refer to Survey and DP in Appendix A). The site is currently host to an existing church and cemetery.

Please refer to Figure 2 and Plates 1 & 2 for photos of the site and the locality.



Source: (NSW Government Spatial Services, 2024)

Figure 2 – Site Aerial



Plate 1 - View of existing building



Plate 2 - View of Windeyer Road, looking west

2.2 Land Use

The site is currently host to a church that is no longer used as a Place of Public Worship on the edge of the Windeyer locality. Surrounding the site are established residential dwelling and agricultural uses.

2.3 Topography

The subject site is relatively flat throughout.

2.4 Flora and Fauna

The site is devoid of any significant vegetation, consisting of general grass cover and landscaping typical of urban use.

In its current state, there is little chance the locality would have potential to support significant flora or fauna species.

2.5 Natural Hazards

The subject site is mapped as being bushfire prone, however not flood prone pursuant the provisions under the *Mid-Western Regional Local Environmental Plan 2013* (the LEP) and the NSW Planning Portal.

2.6 Visual Amenity

The character of the Windeyer Road streetscape is defined by single storey detached dwellings and a cemetery.

2.7 Services

Services including electricity, and telephone infrastructure are available to the site. The Development Application includes provisions for on-site sewerage management and stormwater retention.

2.8 Access and Traffic

An existing driveway, located on the eastern side of the site, provides vehicular access from Windeyer Road. Windeyer Road is a two-way bitumen sealed road improved with table drains.

2.9 Heritage

The subject site is not listed as containing a heritage item under Schedule 5 of the Mid-Western Regional Local Environmental Plan 2011 (the LEP). There are also no heritage items in close vicinity.

A search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken for the site and its immediate surrounds. There is no known Aboriginal culturally significant items or places on or within 200m of the subject site. Please refer to Appendix B for the AHIMS Report.

3.0 PROPOSED DEVELOPMENT

The proposed development is for a change of use from a Place of Public Worship (Church) to a dwelling house, including associated works on Lot 231 DP 1142826, commonly known as 1808 Windeyer Road, Windeyer, NSW 2850.

The proposal generally includes the following:

Demolition:

- Demolish ceiling lining;
- Remove kitchenette & cupboards;
- Remove door to existing store;
- Remove water tank;
- Existing outhouse demolished;

Proposed works:

- Proposed open floor plan dwelling;
 - Kitchen/laundry
 - Bathroom
- 2 x shipping containers with 7.99m awning
 - Colourbond custom orb roof sheeting;
 - New gutters and downpipes connected to rainwater tanks
 - Utilised as a carport
- Onsite effluent management
- 2 x 15,000L Rainwater tanks
- Downpipes and gutters to be replaced to match existing;
- Remove window and brick up opening to match existing. make good to all surfaces;
- Timber fascia boards to be replaced as required to match existing;
- Remove window and brick up opening to match existing. make good to all surfaces;
- Standard septic tank proposed which shall be supported via a 12m x 2m absorption bed.

Refer also to Development Plans in Appendix C, BASIX in Appendix D, and Onsite Waste Management Report in Appendix E.

4.0 LAND ZONING

The subject site is zoned RU5 Village pursuant to *Mid-Western Local Environmental Plan 2012* (the LEP). The proposed development consists of a change of use from a Church to a residential dwelling including alterations and additions, and ancillary structures which is considered permissible with consent in the RU5 Zone. The definition for a dwelling under the LEP is provided below:

"... means a building containing only one dwelling.

Note—

Dwelling houses are a type of residential accommodation—see the definition of that term in this Dictionary."

Dwelling houses are permissible with consent in the RU5 Zone.

The permissibility of the proposed development is assessed in terms of the heads of consideration in Section 4.15 of the *Environmental Planning and Assessment Act 1979*, which incorporates consideration of the LEP, and the objectives and permissible uses outlined in the RU5 Village Zone, as outlined in Section 5 of this report.

5.0 PLANNING CONSIDERATION

5.1 Biodiversity Conservation Act 2016

5.1.1 Is the development likely to significantly affect threatened species?

Clause 7.2 of the *Biodiversity Conservation Act 2016* (BC Act) identifies the following circumstances where a development is likely to significantly affect threatened species:

- (a) *Is it likely to significantly affect threatened species or ecological communities, or their habitats, according to the test in section 7.3, or*
- (b) *The development exceeds the biodiversity offsets scheme threshold if the biodiversity offsets scheme applies to the impacts of the development on biodiversity values, or*
- (c) *It is carried out in a declared area of outstanding biodiversity value.*

Each of these is addressed below.

5.1.1.1 Section 7.3 Test

To determine whether a development is likely to significantly affect threatened species or ecological communities, or their habitats, the following is to be taken into account in accordance with Section 7.3 of the BC Act:

- (a) *In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,*
- (b) *In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:*
 - (i) *Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or*
 - (ii) *Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,*
- (c) *In relation to the habitat of a threatened species or ecological community:*
 - (i) *The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and*
 - (ii) *Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and*
 - (iii) *The importance of the habitat to be removed, modified or fragmented or isolated to the long-term survival of the species or ecological community in the locality,*
- (d) *Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly),*
- (e) *Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.*

Comment: The proposed development is on an infill site which is being altered to support the proposed use and is not considered likely to significantly affect threatened species or ecological communities, or their habitats.

5.1.1.2 Section 7.4 Test

Section 7.4 of the BC Act states:

- (1) *Proposed development exceeds the biodiversity offsets scheme threshold for the purposes of this Part if it is development of an extent or kind that the regulations declare to be development that exceeds the threshold.*
- (2) *In determining whether proposed development exceeds the biodiversity offsets threshold for the purposes of this Part, any part of the proposed development that involves the clearing of native vegetation on category 1-exempt land (within the meaning of Part 5A of the Local Land Services Act 2013) is to be disregarded.*

Comment: The development shall not occur on land mapped as having significant biodiversity values on the Biodiversity Values Map. The proposed development would not be expected to exceed the biodiversity offsets threshold for the purposes of this part.

5.1.1.3 Declared Area of Outstanding Biodiversity Value

The site is not mapped on the Biodiversity Value Map as being land with a high biodiversity value as defined by the BC Act.

5.1.2 Biodiversity Development Assessment Report

As outlined in Section 5.1.1, the proposed development is not likely to significantly affect threatened species as defined by Section 7.2 of the BC Act. Therefore, a Biodiversity Development Assessment Report is not required to accompany the application for development consent.

5.2 Fisheries Management Act 1994

5.2.1 Applicability

The Fisheries Management Act 1994 (FM Act) applies to:

- (a) *In relation to all waters that are within the limits of the State, and*
- (b) *Except for purposes relating to a fishery, or a part of a fishery, that is to be managed in accordance with the law of the Commonwealth pursuant to an arrangement under Division 3 of Part 5 and except for purposes prescribed by paragraph (d)- in relation to any waters of the sea not within the limits of the State that are on the landward side of waters adjacent to the State that are within the Australian Fishing zone, and*
- (c) *For purposes relating to a fishery, or a part of a fishery, that is managed in accordance with the law of the State pursuant to an arrangement under Division 3 of Part 5- in relation to any waters to which the legislative powers of the State extend with respect to that fishery, whether pursuant to Section 5 of the Coastal Waters (State Powers) Act 1980 of the Commonwealth or otherwise, and*
- (d) *For purposes relating to recreational fishing activities engaged in otherwise than by use of a foreign boat (other than recreational activities prohibited or regulated under a plan of management determined under section 17 of the Commonwealth Act)- in relation to any waters to which the legislative powers of the State extend with respect to such activities*

Comment: The Fisheries Management Act 1994 does not apply to the subject proposal.

5.2.2 Is the development likely to significantly affect threatened species, population, or ecological community?

Section 221VZ of the FM Act requires the following matters to be taken into consideration to determine whether a proposed development or activity is likely to significantly affect threatened species, populations, or ecological communities (unless it is carried out in critical habitat):

- (a) *In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,*
- (b) *In the case of an endangered population, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,*
- (c) *In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:*
 - (i) *Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or*
 - (ii) *Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,*
- (d) *In relation to the habitat of a threatened species, population or ecological community:*
 - (i) *The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and*
 - (ii) *Whether an area of habitat is likely to become fragmentated or isolated from other areas of habitat as a result of the proposed development or activity, and*
 - (iii) *The importance of the habitat to be removed, modified, fragmentated or isolated to the long-term survival of the threatened species, population or ecological community in the locality,*
- (e) *Whether the proposed development or activity is likely to have an adverse effect on any critical habitat (either directly or indirectly),*
- (f) *Whether the proposed development or activity is consistent with a Priorities Action Statement,*
- (g) *Whether the proposed development constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.*

The assessment guidelines under section 220ZZA apply to the determination of whether any such proposed development or activity is likely to significantly affect threatened species.

Comment: The Fisheries Management Act 1994 does not apply to the subject proposal.

5.3 Environmental Planning & Assessment Act 1979

5.3.1 Evaluation

Section 4.15 of the EP&A Act (as amended) requires the Council to consider various matters in regard to the determination of the Development Application.

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:

- a) The provisions of:
 - i. any environmental planning instrument, and
 - ii. any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and
 - iii. any development control plan, and
 - iv. any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and
 - v. the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and
 - vi. any coastal zone management plan (within the meaning of the Coastal Protection Act 1979), that apply to the land to which the development application relates,
- b) The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality;
- c) The suitability of the site for the development,
- d) Any submissions made in accordance with this act or the regulations,
- e) The public interest.

The proposed development has been designed with consideration to the following matters, as outlined below.

5.4 Environmental Planning Instruments

5.4.1 State Environmental Planning Policies (SEPP)

While a number of SEPPs apply to the subject land and development thereon, there is unlikely to be any significant implications in terms of the requirements of the SEPPs on the proposed development. The following SEPPs are considered:

5.2.1.2 SEPP (Sustainable Buildings) 2022

The proposed development comprises BASIX affected development. BASIX information has been prepared, please refer to Appendix D.

5.2.1.3 SEPP (Resilience and Hazards) 2021

Clause 4.6(1) of *State Environmental Planning Policy (Resilience and Hazards) 2021* requires Council to consider the following before granting consent to a DA:

- (a) *It has considered whether the land is contaminated, and*
- (b) *If the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
- (c) *If the land required remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

Comment: The subject site does not appear to have been subject to any of the materials listed in Appendix A of the *Managing Land Contamination: Planning Guidelines SEPP 55- Remediation of Land* (NSW Department of Urban Affairs and Planning and Environment Protection Authority, 1998). The current use is as sensitive in terms of contaminating activities as the proposed use. There does

not appear to have been any contaminating activities carried out on site and it is considered that a Preliminary Site Investigation (PSI) is not required at this given time.

5.3 Mid-Western Regional Local Environmental Plan 2022

5.3.1 Land Use Table

The subject site is zoned RU5 – Village pursuant to the *Mid-Western Regional Local Environmental Plan 2012* (the LEP). The objectives of the RU5 Zone are as follows:

- *To provide for a range of land uses, services and facilities that are associated with a rural village.*
- *To promote development that is sustainable in terms of the capacity of infrastructure within villages.*

Comment: The proposal constitutes a 'change of use' to support a dwelling development, which is permissible use in the RU5 zone. The use is consistent with the existing character of the locality and is considered to be consistent with the RU5 zone objectives, as listed above.

5.3.2 Clause 4.2A Erection of dwelling houses, dual occupancies and tourist and visitor accommodation on land in certain zones

Clause 3(a) of the LEP notes the following:

"Development consent must not be granted for the erection of a dwelling house or dual occupancy on land in a zone to which this clause applies, and on which no dwelling house or dual occupancy has been erected, unless the land—

- (a) is a lot that is at least the minimum lot size shown on the [Lot Size Map](#) in relation to that land, or"*

Comment: The proposed subject site is located in RU5 zoned land. The minimum lot size identified on the Lot Size Map for this land is 1,000m². According to the Deposited Plan, the proposed site has an area of 6,703m², thus the proposal is compliant regarding Clause 4.2A.

5.3.3 6.3 Earthworks

Clause 6.3 of the LEP requires the consent authority to consider the following matters before granting consent for earthworks:

- (a) The likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality of the development,*
- (b) The effect of the development on the likely future use or redevelopment of the land,*
- (c) The quality of the fill or the soil to be excavated or both,*
- (d) The effect of the development on the existing and likely amenity of adjoining properties,*
- (e) The source of any fill material and the destination of any excavated material,*
- (f) The likelihood of disturbing relics,*
- (g) The proximity to, and potential for adverse impacts on, any waterway, drinking water catchment or environmentally sensitive area,*
- (h) Any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.*

Comment: The site is relatively flat throughout. The proposal involves minimal earthworks disturbance occurring mostly within an existing building and curtilage. There shall be no disruption to existing drainage patterns or soil stability in the area. Appropriate erosion and sediment controls will be undertaken on the site during development works to prevent and reduce any soil erosion that would occur on the site.

5.3.4 Clause 6.9 Essential Services

Development consent must not be granted to development unless the consent authority is satisfied that any of the following services that are essential for the proposed development are available or that adequate arrangements have been made to make them available when required:

- (a) The supply of water,*
- (b) The supply of electricity,*
- (c) The disposal and management of sewerage,*
- (d) Stormwater drainage or on-site detention conservation, and*
- (e) Suitable road access.*

Comment: The proposed development shall be serviced by essential services including electricity, and telecommunications. Onsite water retention and waste management will also be included, please see Appendix E for the onsite wastewater system design. An existing vehicular crossover shall be retained and is considered suitable for the proposal.

5.4 Draft Environmental Planning Instruments

No draft Environmental Planning Instruments are applicable to the subject site or development.

5.5 Mid-Western Regional Council Development Control Plan 2013

5.5.1 Introduction

The Mid-Western Regional Council Development Control Plan 2013 (DCP) outlines the detailed requirements for development in the LGA. Each of the sections of the DCP relevant to the proposed development are addressed below.

5.5.2 Residential Development & Subdivision

The relevant provisions of the DCP are identified and addressed below:

Table 1 – DCP Requirements

Provision	Requirements	Comment																																
Section 3.1 RESIDENTIAL DEVELOPMENT IN URBAN AREAS (SINGLE DWELLINGS AND DUAL-OCCUPANCIES)																																		
<p>Note. Where a development does not comply with the “Fast-track” criteria, a normal development application may be lodged. In lodging the development application justification must be given to the variation from the fast track criteria by addressing the objectives outlined in the discretionary standards relevant to the particular type of development.</p> <p>Comment: Certain provisions of the fast-tracked DCP cannot be met. For the areas of the DCP that cannot be met, justification will be given to the variation from the fast-track criteria by addressing the objectives outlined in the discretionary standards relevant to the particular type of development. It is understood that the application will therefore not be considered as a fast-track application.</p>																																		
Building Setbacks Deem to Satisfy	<table><tr><th>Zone</th><th>Street</th><th>Side/Rear</th><th>Secondary Frontage for Corner Lots *</th></tr><tr><td>R1, R2 and R3 where Lot size is less than 900m2</td><td>4.5m to building line or average of adjoining properties 5.5m to the garage</td><td>900mm</td><td>0m for garages in laneways 2m to side boundary</td></tr><tr><td>R1, R2 and R3 where Lot size is greater than 900m2, less than 2000m2</td><td>6.5m to building line or average of adjoining properties 7.5 to the garage</td><td>900mm</td><td>2m</td></tr><tr><td>R2 where 2000m2 to 1ha</td><td>10m</td><td>2.5m</td><td>5m</td></tr><tr><td>R5 Less than or equal to 5ha. In area</td><td>30m</td><td>20m</td><td>15m</td></tr><tr><td>RU1, RU4 and R5 Greater than 5ha. in area</td><td>60m</td><td>20m</td><td>15m</td></tr><tr><td>RU5</td><td>7.5m</td><td>BCA</td><td>3m</td></tr><tr><td colspan="4">*Applicant to nominate front and secondary setback.</td></tr></table>	Zone	Street	Side/Rear	Secondary Frontage for Corner Lots *	R1, R2 and R3 where Lot size is less than 900m2	4.5m to building line or average of adjoining properties 5.5m to the garage	900mm	0m for garages in laneways 2m to side boundary	R1, R2 and R3 where Lot size is greater than 900m2, less than 2000m2	6.5m to building line or average of adjoining properties 7.5 to the garage	900mm	2m	R2 where 2000m2 to 1ha	10m	2.5m	5m	R5 Less than or equal to 5ha. In area	30m	20m	15m	RU1, RU4 and R5 Greater than 5ha. in area	60m	20m	15m	RU5	7.5m	BCA	3m	*Applicant to nominate front and secondary setback.				<p>The setback of the building is existing from Windeyer Road and the side & rear setbacks are compliant with the BCA requirements. The site does have a secondary frontage to Windgraves Road which is greater than 7.5m (15.98m). It is ensured at least a 3.0m setback is available for side and rear setbacks.</p> <p>The proposed setbacks are in context with the existing setbacks in the Windeyer area, and the existing crossover and proposed driveway offer suitable sightlines when entering and exiting the site.</p>
Zone	Street	Side/Rear	Secondary Frontage for Corner Lots *																															
R1, R2 and R3 where Lot size is less than 900m2	4.5m to building line or average of adjoining properties 5.5m to the garage	900mm	0m for garages in laneways 2m to side boundary																															
R1, R2 and R3 where Lot size is greater than 900m2, less than 2000m2	6.5m to building line or average of adjoining properties 7.5 to the garage	900mm	2m																															
R2 where 2000m2 to 1ha	10m	2.5m	5m																															
R5 Less than or equal to 5ha. In area	30m	20m	15m																															
RU1, RU4 and R5 Greater than 5ha. in area	60m	20m	15m																															
RU5	7.5m	BCA	3m																															
*Applicant to nominate front and secondary setback.																																		

Building Height Deemed to Satisfy	Single storey (Single storey dwelling is one that has only one storey (as defined by the BCA) and the Finished Floor Level (FFL) is less than 1 metre above natural ground level.	The dwellings comply as they are single storey with the FFL being less than 1m above the natural ground level.
Site Coverage Deemed to Satisfy	Maximum site coverage of 35%	<p>Site coverage can be considered as the following:</p> <p><i>Dwelling, storage area, and two (2) containers:</i> 197.89m²</p> <p><i>Site area:</i> 6,703m²</p> <p>Site coverage = 197.89/6,703m² x 100</p> <p>Site Coverage = 2.95%</p> <p>The proposed site coverage is considered compliant.</p>
Solar Access Deemed to Satisfy	<p>(a) Development must have reasonable access to sunlight and must not unduly impede solar access of neighbouring dwellings.</p> <p>(b) Dwellings are to be positioned to maximise solar access to living areas.</p> <p>(c) Shadow diagram must include:</p> <ul style="list-style-type: none"> • Location, size, height and windows openings of buildings on adjoining properties; • Existing shadow-casting structures such as fences, carports, hedges, trees etc.; and • Topographical details, including sectional elevations where land has any significant slope. <p>(d) Living areas and gardens should be orientated to the north to maximise solar access to these areas.</p> <p>(e) North-facing pitched roofs should be incorporated where possible to provide opportunity for solar energy collectors.</p> <p>(f) Solar access should be controlled within buildings to allow warm winter sun to penetrate rooms while excluding hot summer sun by:</p> <ul style="list-style-type: none"> • Using horizontal projecting screens such as balconies, awnings, verandah roofs, pergolas and wide eaves; and 	<p>As per the floor plan provided in Appendix C, the floor plan depicts the building having a northern aspect.</p> <p>There is ample room for private open space on the northern, and western side of the proposed dwelling. This should be considered suitable given the fact the property is approximately 6,703m², allowing for suitable solar access. The property does not have residential dwelling in close proximity to boundaries, thus minimising potential for overshadowing.</p>

	<ul style="list-style-type: none"> • Use of ceiling insulation. 	
Privacy Deemed to Satisfy	Dwellings must be single storey and have a finished floor level less than 1,000 mm above the natural ground level.	The proposed dwelling is single storey in nature and have a finished floor level less than 1,000mm above natural ground level.
Parking Deemed to Satisfy	Two (2) spaces per dwelling.	The proposed dwelling has suitable availability for two (2) spaces.
Landscaping	(a) Landscaping must enhance the quality of the built environment. (b) Species selection and location should improve energy efficiency through reducing heat gain through windows and deflecting winter winds. (c) Plants with low maintenance and water requirements should be selected.	Given the size of the property, there is ample room for future landscaping. It will be in context with a residential development.
Open Space Part 3.1 – Discretionary Development Standards addressed.	(a) Sufficient open space must be provided for the use and enjoyment of the residents. (b) A plan shall be submitted which demonstrates that the dimension of the open space provides for functional space, including placement of outdoor furniture. (c) Open space areas provided must be suitably located and landscaped to obtain adequate sunlight and protection from prevailing winds. (d) Private open space for dual occupancy development is to be a minimum area of 80m ² and have a minimum dimension of 5 metres (depth and width). (e) Private open space for dual occupancy development is to be located behind the front building line and on the northern, eastern or western side of the dwelling.	Given the location of the existing building there is space on the western/north-western side of the proposed dwelling which can provide for open space. It should also note that the size of the lot, allows for at least a minimum of 5m dimension/80m ² private open space area.
Corner Lots	(a) Development must address both street frontages.	The proposal is existing and the development addresses both street frontage's.

	(b) Utility windows are not permitted on either elevation with frontage to the street unless they are integrated into architectural features of the development.	Suitable openings and architectural features are located on both street frontages.
Fencing Part 3.1 – Discretionary Development Standards addressed.	<p>(a) Fencing facing the street or forward of the building line must avoid extensive lengths of 'Colorbond' as it presents a barrier to the street.</p> <p>(b) Solid fencing of a length greater than 30% may be permitted where landscaping is provided to soften the visual impact on the streetscape.</p>	No proposed changes to existing fencing.
Infrastructure	<p>(a) Surface infrastructure (e.g. tanks, clotheslines) must not be located within front setback.</p> <p>(b) Surface infrastructure must not be visible from the street.</p> <p>(c) Garbage storage locations must be included in landscape plan and show how they will be screened.</p>	All relevant infrastructure is behind the front setback.

Garages, Out buildings	<p>a) Outbuildings must not negatively affect the amenity of the streetscape or adjoining properties. The following standards apply for urban areas*.</p> <table><tr><th>Lot size m2</th><th>Shed Size m2</th></tr><tr><td><750</td><td>50</td></tr><tr><td>751-1000</td><td>80</td></tr><tr><td>1001-2000</td><td>100</td></tr><tr><td>2001 - 3000</td><td>120</td></tr><tr><td>3001 or greater</td><td>150</td></tr></table> <p>*urban areas are limited to residential areas which include the R1, R2, R3 zones and where a dwelling-house is approved or constructed on the land. A garage or outbuilding is not permitted on vacant urban land where a dwelling is not approved or constructed.</p> <p>A maximum building height of 4.5 metres from natural ground level to the ridge applies in urban areas where the lot is under 2,000m².</p>	Lot size m2	Shed Size m2	<750	50	751-1000	80	1001-2000	100	2001 - 3000	120	3001 or greater	150	As part of the application, the proposal includes provisions for a carport. It is proposed to have a floor area of 25.34m ² complying with this requirement.
Lot size m2	Shed Size m2													
<750	50													
751-1000	80													
1001-2000	100													
2001 - 3000	120													
3001 or greater	150													
Development Near Ridgelines	<p>(a) A ridgeline is considered an elevated section of land, visible from beyond the individual property boundary.</p> <p>(b) Development shall protect key landscape features, being the dominant ridgelines and slopes and the intermediate ridges forming a visual backdrop to existing and future urban localities and places of special landscape amenity.</p> <p>(c) Development should not be visually intrusive or degrade the environmental value, landscape integrity or visual amenity of land.</p> <p>(d) The dwelling-house and associated buildings must not be visible above the existing skyline or any prominent ridgeline or local hilltop.</p> <p>(e) The dwelling-house and associated buildings will be constructed from low reflectivity building materials and incorporate colours which are visually unobtrusive in relation to the surrounding environment.</p>	N/A – The proposal is not located near any identified ridgelines.												

<p>Slopes</p> <p>Deemed to Satisfy</p>	<ul style="list-style-type: none"> (a) Cut is to be limited to 1,000 mm (b) Fill is restricted to 600 mm. It must be clean fill and a geotechnical assessment issued for the fill to demonstrate compaction to the Australian Standard. (c) Any cut and/or fill must be provided with retaining walls, drainage and must be setback a minimum of 300 mm from any boundary. (d) Fill must not direct stormwater onto adjoining properties and drainage pits for overland flow paths are to be provided. (e) Cut and fill is not permitted within water or sewer easements. 	<p>The proposed change of use and alterations and additions is occurring to an existing building utilising existing flooring and sub-structure. The remainder of the development, there is limited cut and fill proposed.</p> <p>It shall not impact stormwater and will not cause it to go onto neighbouring sites.</p> <p>No easements located onsite.</p>
<p>Access</p>	<p>All weather vehicle access is required to ensure that emergency services (fire, ambulance, police) are able to access the dwelling at all times.</p>	<p>All weather access is provided to the dwelling via Windeyer Road.</p>
<p>Relocated Dwellings</p>	<p>N/A</p>	<p>Proposed development does not involve relocated or transportable dwellings.</p>
<p>Design Principles</p>	<ul style="list-style-type: none"> (a) Design should maximise surveillance with clear sightlines between public and private places, effective lighting of public places and landscaping that makes places. (b) Physical and symbolic barriers should be used to attract, channel or restrict the movement of people to minimise opportunities for crime and increase the effort required to commit crime (c) Must be sympathetic with existing adjoining and surrounding developments in relation to bulk and height. (d) Well-proportioned building form that contributes to the streetscape and amenity (e) Density appropriate to the regional context, availability of infrastructure, public transport, community facilities and environmental quality (f) Design must demonstrate efficient use of natural resources, energy and water throughout its full life cycle, including construction. 	<p>Design of the development shall allow for maximum passive surveillance with clear sightlines between the public areas of the street, and private areas including the rear and front areas of the subject site.</p> <p>The design also limits areas that create opportunities of crime, which will help detract potential criminal activities.</p> <p>The proposal is not out of character given the fact it is upgrading an existing building already located onsite on the edge of the Windeyer locality.</p> <p>The proposed dwelling is one storey in height and well within the LEPs requirement for Height of Buildings.</p>

	<ul style="list-style-type: none"> (g) Landscape design should optimise useability, privacy and social opportunity, equitable access and respect for neighbours' amenity, and provide for practical establishment and long-term management. (h) Optimise amenity (e.g. appropriate room dimensions and shapes, access to sunlight, natural ventilation, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, outlook and ease of access for all age groups and degrees of mobility). (i) Optimise safety and security, both internal to the development and for the public domain. (j) Design must demonstrate response to the social context and needs of the local community in terms of lifestyles, affordability, and access to social facilities. (k) Council will not support dual occupancy development where both dwellings are premanufactured or relocatable homes in urban zones. 	<p>The layout optimises suitable layouts which ensure that living and dining areas, and open space have adequate sunlight and ventilation. Further, the overall layout and access areas do not discriminate and provide easy access for people of all conditions and ages.</p>
--	---	--

5.6 Any Planning Agreement entered into

No Planning Agreements entered into are known to exist in relation to the development or site.

5.7 Any Matters Prescribed by the Regulations

For the purposes of Section 4.15(1)(a)(iv) of the EP&A Act, Clause 61 of the *Environmental Planning and Assessment Regulations 2021* (EP&A Regulations) specifies the additional matters a consent authority must take into consideration when a determining a DA.

5.7.1 Introduction

For the purposes Section 4.15(1)(a)(iv) of the EP&A Act, Clause 61 of the *Environmental Planning and Assessment Regulations 2021* (EP&A Regulations) specifies the additional matters a consent authority must take into consideration when a determining a DA. The following matter is relevant to the site and development.

5.7.2 Demolition Works

In relation to demolition works, the provisions of AS2601 need to be considered. In this regard, all proposed demolition will be carried out in accordance with Australian Standard AS2601: the Demolition of Structures. It is recommended that any asbestos containing materials (unlikely due to age of building) be considered as part of addressing the abovementioned standard.

5.8 Any Likely Impacts of the Development

5.8.1 Context & Setting

The subject site is located in an environment which is characterised by existing single-storey residential dwellings, and rural land to the west and east. The proposed development is considered to be consistent with the existing streetscape and would not impact on the context or setting in the locality.

5.8.2 Access, Transport & Traffic

Access shall be gained via the western side of Windeyer Road via an existing crossover. No additional access is offered. Traffic maneuverability and the proposed parking arrangement is considered suitable for the proposed development and will not impact on existing traffic conditions in the locality. Parking is provided via a carport on the eastern side of the proposed dwelling.

5.8.3 Utilities

Services including electricity and telephone infrastructure are available to the site. A new onsite septic system and rainwater tanks are proposed, please refer to Appendix D for the onsite effluent management report, which considers the proposal suitable.

5.8.4 Air & Microclimate

The proposed construction works will generate some air pollution, primarily from the extra vehicles on the site and some dust pollution. The incidence of air pollution can be reduced by using appropriate equipment, employing good work practise, especially in conditions where dust is likely to be a nuisance.

5.8.5 Noise

The proposed construction works shall generate some noise impact. The likelihood of noise becoming offensive can be minimised by adopting good work practice and adhering to normal construction hours.

5.8.6 Waste

Any waste generated during the construction period would be removed to an approved landfill site as required by Council. Construction waste would be collected in bins located on-site and emptied on a regular basis.

5.8.7 Construction

A site establishment area will be set up on the subject site to ensure site safety and to reduce any environmental impacts. Erosion and sediment control measures shall be carried out on the site during development works.

5.8.8 Bushfire

The subject site has been identified as bushfire prone according to the Mid-Western LEP and ePlanning Spatial Viewer. As such a Bush Fire Assessment Report has been provided in Appendix F. The report has provided recommended Bush Fire Protection Measures listed in the BFAR that must be incorporated into the development to ensure it best protects the development from the effects of bushfire in accordance with the requirements of PBP and other best practice guidelines.

5.8.9 Social & Economic Impacts in the Locality

The development is conveniently located within an area in the Windeyer region. The proposal provides employment opportunities during the construction stages and makes use of existing infrastructure which is considered a positive outcome.

5.8.10 Other

There are no other issues such as flooding, flora/fauna, that would significantly impact upon the development.

5.9 Suitability of the Site for the Proposed Development

The suitability of the site for the proposed development has been addressed in the above sections of this report. There are no prohibitive constraints posed by adjacent developments. There does not appear to be any zoning, planning, or environmental matters that should hinder the proposed development of the site. In this regard, it can be concluded that the proposal fits into the locality and the site attributes are conducive for the development.

5.10 The Public Interest

The proposal is considered to have a positive impact on the local environment, and it is in the public interest for the development to proceed, in the enhancement of the locality and to provide for growth of the Goolma community and the Mid-Western Local Government Area.

6 CONCLUSION

It is recommended that the proposed change of use, including alterations and additions for a proposed dwelling and associated outbuilding at Lot 231 DP 1142826, known as 1808 Windeyer Road, Windeyer be supported on the following grounds:

- The proposal is considered acceptable in terms of the provisions of Section 4.15 of the *Environmental Planning and Assessment Act 1979*;
- The proposal is permissible with consent and consistent with the relevant development standards and provisions of the *Mid-Western Regional Local Environmental Plan 2012*;
- The proposal complies with the relevant provisions of the *Mid-Western Regional Council Development Control Plan 2013*;
- The proposed development is not anticipated to generate any adverse impacts in the locality; and
- The proposed development is considered suitable for the site and its surrounds.

7 REFERENCES

The following key references were utilised as part of this assessment:

- *AHIMS*
- *Mid-Western Development Control Plan 2013*
- *Mid-Western Regional Local Environmental Plan 2012*
- *NSW Government Spatial Services 2021*
- *State Environmental Planning Policy (Industry and Employment) 2021*

barnson.

APPENDIX A
Survey

DP 1142826

Registered: 25.8.2009



Title System: OLD SYSTEM

Purpose: LIMITED FOLIO CREATION

Ref. Map: TOWN WINDEYER

Last Plan: 3.1684

C.A. 140057

PLAN OF LAND COMPRISED IN

SER 162 PAGE 683 BEING THE RESIDUE

POR 23 EX LAND LOT 1 DP199708

Lengths are in metres. Reduction Ratio - NTS

Sheet 1 of 1 sheet

L.G.A.: MID-WESTERN REGIONAL

LOCALITY: WINDEYER

PARISH: WINDEYER (51)

COUNTY: WELLINGTON

THIS PLAN WAS PREPARED SOLELY TO
IDENTIFY THE LAND IN THE ABOVE DEED
AND THE BOUNDARIES HAVE NOT BEEN
INVESTIGATED BY THE REGISTRAR GENERAL

THIS PLAN IS NOT A CURRENT PLAN IN TERMS OF
S.7A CONVEYANCING ACT 1919.

PLAN COMPILED FROM 3.1684 & DP199708

LPI Ref. : TCB60/50

RD 20.115 WIDE

1

DP 199708

33.655
(DEDN)
328° 32'

239° 17' 10"

201.17

6703m² (DEDN)

231

238° 32'

201.17

148° 32'
32.77
(DEDN)

WINDGRAVES

ROAD

MUDGEE ST

barnson.

APPENDIX B
AHIMS

Barnson

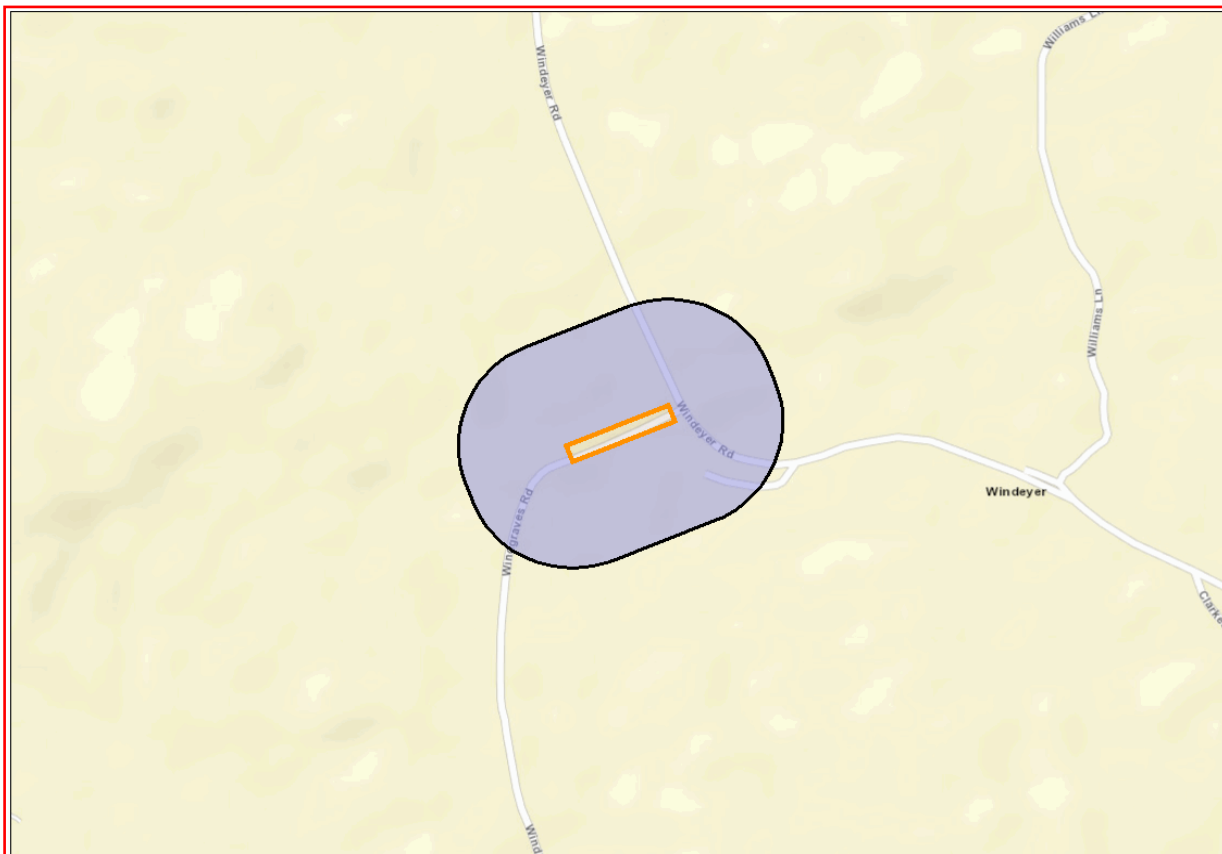
Date: 11 April 2025

Attention: Sebastian Minehan

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 231, DP:DP1142826, Section : - with a Buffer of 200 meters, conducted by Sebastian Minehan on 11 April 2025.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(https://www.legislation.nsw.gov.au/gazette\)](https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

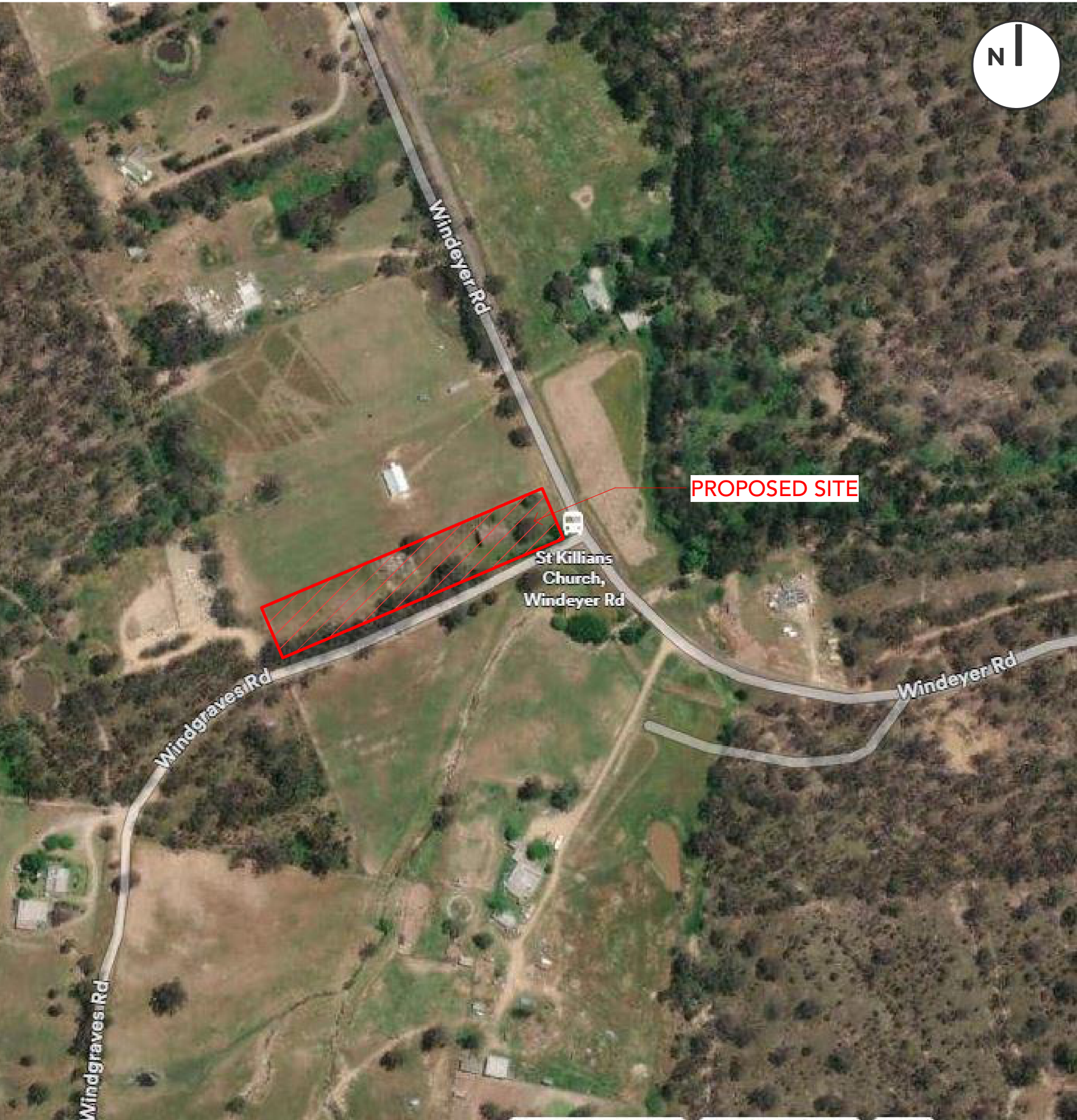
- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

APPENDIX C

Development Plans



LOCALITY PLAN.



1808 Windeyer Road NSW 2850

Lot 231, DP 1142826

DRAWING SCHEDULE.

01	COVER SHEET	REV B	DATED 02.05.2025
02	SAFE DESIGN OF STRUCTURES	REV B	DATED 02.05.2025
03	SITE PLAN	REV B	DATED 02.05.2025
04	EXIST	REV B	DATED 02.05.2025
05	FLOO	REV B	DATED 02.05.2025
06	FLOO	REV B	DATED 02.05.2025

GENERAL NOTES.

In addition to the National Construction Code series, Building Code of Australia Vol. 2, 2022, the Plumbing Code of Australia, 2022 & the building regulations applicable to the state of New South Wales, the following applicable Australian Standards & codes of practice are to be adhered to through the documentation & construction works;

AS1668	Mechanical ventilation & air conditioning in Buildings
AS3000	Electrical installations; buildings, structures & premises (known as the saa wiring rules)
AS2890.5	On-street parking; mandatory requirements
AS1690	Interior lighting

These drawings shall be read in conjunction with all architectural & other consultants drawings & specifications & with such other written instructions as may be issued during the course of the contract. All discrepancies shall be referred to 'Barnson Pty Ltd' for a decision before proceeding with the work.

All dimensions are in millimetres unless stated otherwise & levels are expressed in metres. Figured dimensions are to be taken in preference to scaled dimensions unless otherwise stated. All dimensions are nominal, and those relevant to setting out & off-site work shall be verified by the contractor before construction & fabrication.

PROPOSED CHANGE OF USE

1808 WINDEYER ROAD, WINDEYER, NSW 2850



Project:
PROPOSED CHANGE OF USE

Site Address:
1808 WINDEYER ROAD, WINDEYER, NSW 2850

Client:
JORGE DIAZ

Drawing Title:
COVER SHEET

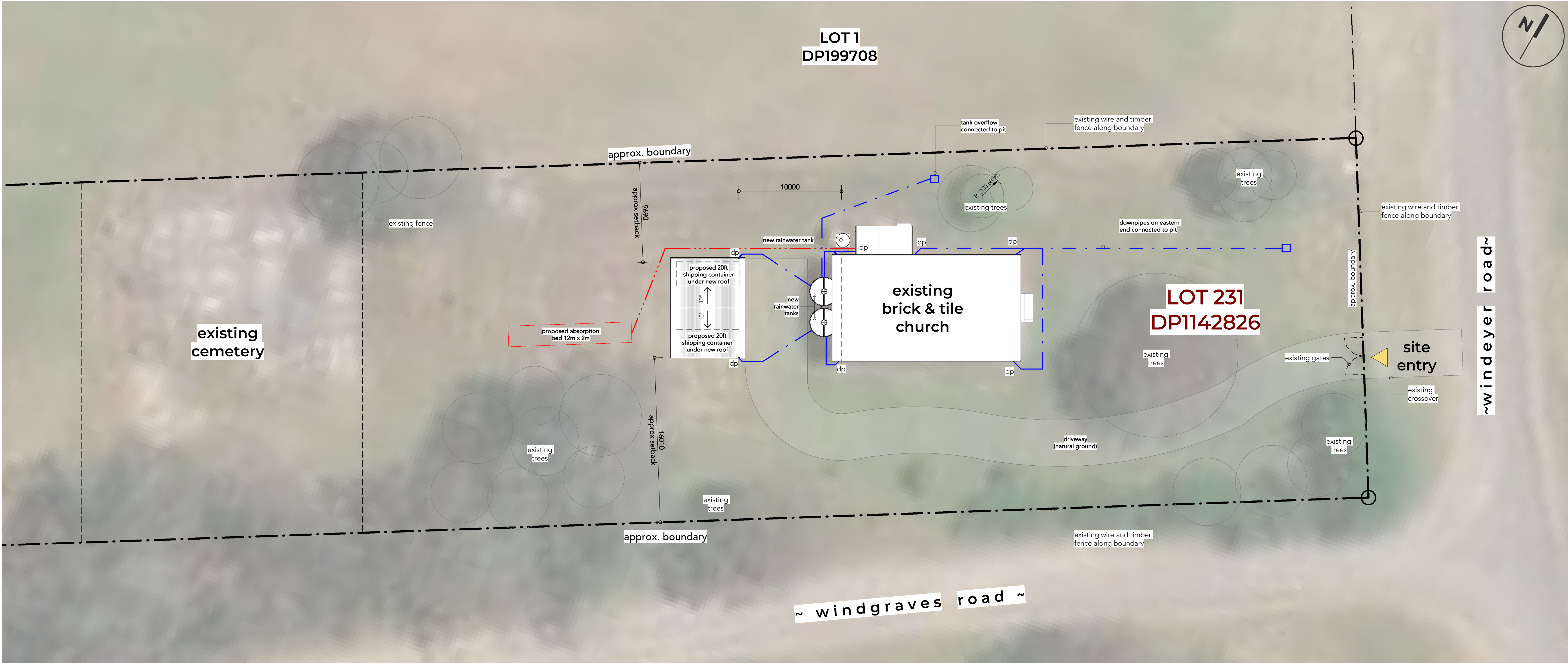
Scale: 1:1 @ A1

Sheet: 01 of 06

Project No: 46937

Drawing No.

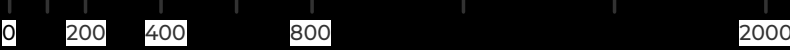
46937-
A01



SITE NOTES.
GENERAL

01 SITE PLAN

Scale: 1:200 @ A1



All work to be undertaken in accordance with the specifications & the directions of the supervising engineer. Where new works are proposed, the specifications & the directions of the supervising engineer shall be obtained.

DRAINAGE

ISSUE FOR DA

BARNSON PTY LTD

address, Unit 1, 36 Darling Street
Dubbo NSW 2830
phone, 1300 BARNSON (1300 227 676)
email, generalenquiry@barnson.com.au
web, barnson.com.au

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH GENERAL BUILDING DRAWINGS, SPECIFICATIONS & OTHER CONSULTANT'S DRAWINGS APPLICABLE TO THIS PROJECT. ALL DIMENSIONS IN MILLIMETRES. DO NOT SCALE. DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK. REPORT DISCREPANCIES TO BARNSON PTY LTD. NO PART OF THIS DRAWING MAY BE REPRODUCED IN ANY WAY WITHOUT THE WRITTEN PERMISSION OF BARNSON PTY LTD.

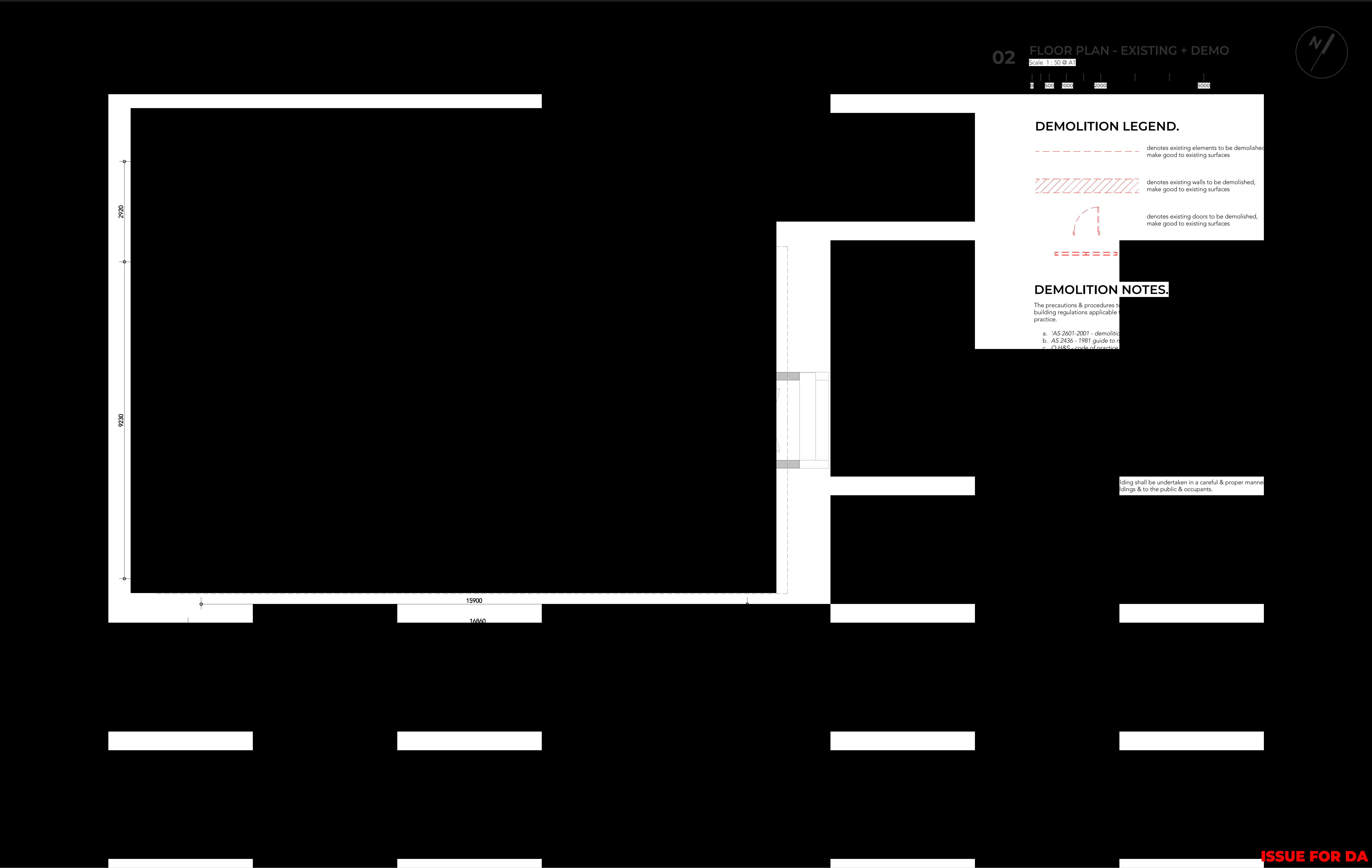
Rev.	Date	Amendment
A	10.04.2025	PRELIMINARY ISSUE FOR REVIEW
B	02.05.2025	ISSUE FOR DA

Project, PROPOSED CHANGE OF USE
Site Address, 1808 WINDEYER ROAD, WINDEYER, NSW 2850
Client, JORGE DIAZ

Drawing Title, SITE PLAN
Scale, As indicated @ A1
Sheet, 03 of 06
Project No, 46937
Drawn, TP
Design, LO
Checked, CR
Revision, B

Drawing No.

46937-
A03



DEMOLITION LEGEND.

- denotes existing elements to be demolished, make good to existing surfaces
- denotes existing walls to be demolished, make good to existing surfaces
- denotes existing doors to be demolished, make good to existing surfaces

DEMOLITION NOTES.

The precautions & procedures to be followed shall be in accordance with the building regulations applicable to the site and the demolition practice.

a. 'AS 2601-2001 - demolition practice'

b. AS 2436 - 1981 guide to the safe demolition of buildings

c. OHS & S - code of practice

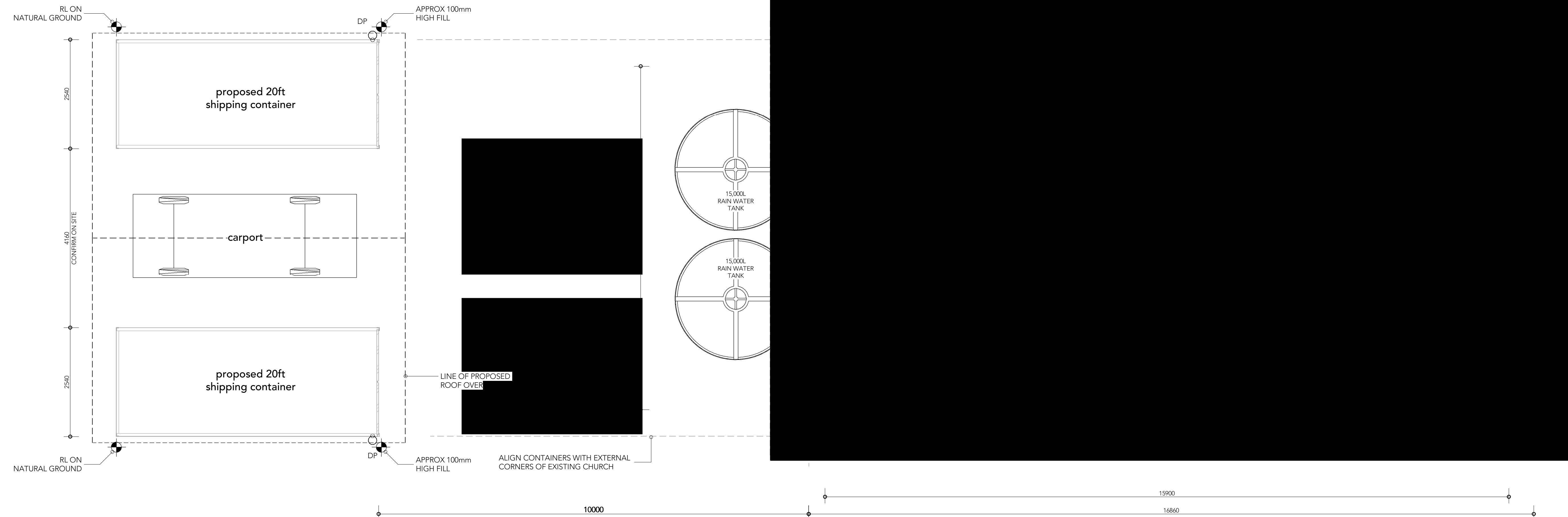
Demolition shall be undertaken in a careful & proper manner to protect buildings & to the public & occupants.

ISSUE FOR DA

BASIX CERTIFICATE COMMITMENTS.

Certificate number: A1793760

HOT WATER
The applicant must install the following hot water system in the development: electric heat pump system that is eligible to create Renewable Energy Certificates under the (Commonwealth) Renewable Energy (Electricity) Regulations 2001 (incorporating Amendment Regulations 2005 (No. 2)
LIGHTING
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.
FIXTURES
<div><div></div><div>The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.</div></div> <div><div></div><div>The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.</div></div> <div><div></div><div>The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating.</div></div>



03 FLOOR PLAN - PROPOSED
Scale 1 : 50 @ A1
0 500 1000 2000 5000



LE

ISSUE FOR DA



BARNSON PTY LTD
address, Unit 1, 36 Darling Street
Dubbo NSW 2830
phone, 1300 BARNSON (1300 227 676)
email, generalenquiry@barnson.com.au
web, barnson.com.au
THIS DRAWING IS TO BE READ IN CONJUNCTION WITH GENERAL BUILDING DRAWINGS, SPECIFICATIONS & OTHER CONSULTANT'S DRAWINGS APPLICABLE TO THIS PROJECT. ALL DIMENSIONS IN MILLIMETRES. DO NOT SCALE. DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK. REPORT DISCREPANCIES TO BARNSON PTY LTD. NO PART OF THIS DRAWING MAY BE REPRODUCED IN ANY WAY WITHOUT THE WRITTEN PERMISSION OF BARNSON PTY LTD.

Rev.	Date	Amendment
A	10.04.2025	PRELIMINARY ISSUE FOR REVIEW
B	02.05.2025	ISSUE FOR DA

Project
PROPOSED CHANGE OF USE

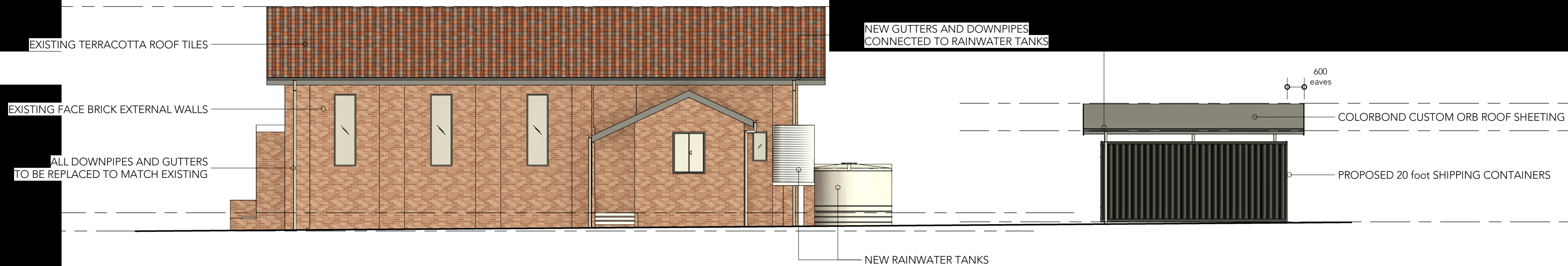
Site Address
1808 WINDEYER ROAD, WINDEYER, NSW 2850

Client
JORGE DIAZ

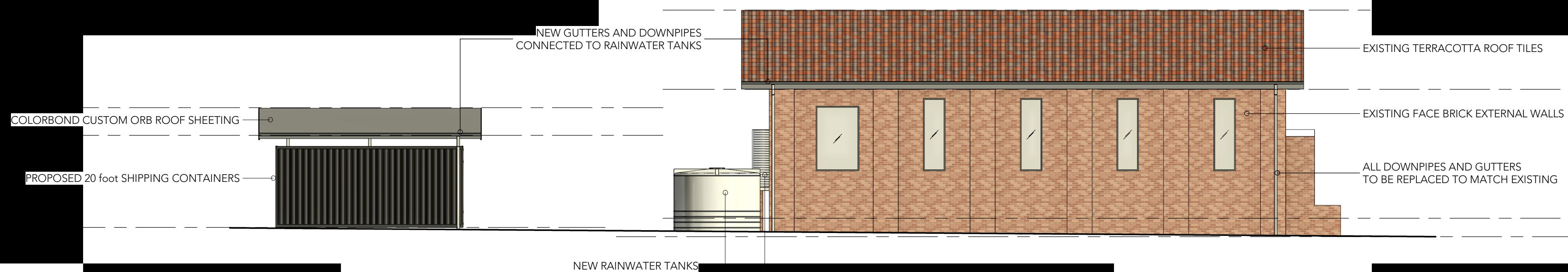
Drawing Title	Scale	As indicated @ A1	Drawn	TP
Sheet	05 of 06		Design	LO
Project No	46937		Checked	CR
			Revision	B

Drawing No.

46937-
A05



04 ELEVATION. NORTH ELEVATION
Scale 1:100 @ A1



05 ELEVATION. SOUTH ELEVATION
Scale 1:100 @ A1



06 ELEVATION. EAST ELEVATION
Scale 1:100 @ A1

0 1000 2000 4000 10000

07 ELEVATION. WEST ELEVATION
Scale 1:100 @ A1

08 ELEVATION. EAST ELEVATION - CONTAINERS
Scale 1:100 @ A1

ISSUE FOR DA

BARNSON PTY LTD

address, Suite 8, 11 White Street
Tamworth NSW 2340
phone, 1300 BARNSON (1300 227 676)
email, generalenquiry@barnson.com.au
web, barnson.com.au

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH GENERAL BUILDING DRAWINGS, SPECIFICATIONS & OTHER CONSULTANT'S DRAWINGS APPLICABLE TO THIS PROJECT. ALL DIMENSIONS IN MILLIMETRES. DO NOT SCALE. DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK. REPORT DISCREPANCIES TO BARNSON PTY LTD. NO PART OF THIS DRAWING MAY BE REPRODUCED IN ANY WAY WITHOUT THE WRITTEN PERMISSION OF BARNSON PTY LTD.

Rev.	Date	Amendment
A	10.04.2025	PRELIMINARY ISSUE FOR REVIEW
B	02.05.2025	ISSUE FOR DA

Project	PROPOSED CHANGE OF USE
Site Address	1808 WINDEYER ROAD, WINDEYER, NSW 2850
Client	JORGE DIAZ

Drawing Title	ELEVATIONS
Scale	1:100 @ A1
Sheet	06 of 06
Project No.	46937
Drawn	TP
Design	LO
Checked	CR
Revision	B

Drawing No.

46937-
A06

barnson.

APPENDIX D
BASIX

BASIX™ Certificate

Building Sustainability Index

www.planningportal.nsw.gov.au/development-and-assessment/basix

Alterations and Additions

Certificate number: A1793760

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 10/09/2020 published by the Department. This document is available at www.planningportal.nsw.gov.au/definitions

Secretary

Date of issue: Friday, 02 May 2025

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project address

Project name	Windeyer Change of Use
Street address	1808 WINDEYER Road WINDEYER 2850
Local Government Area	Mid-Western Regional Council
Plan type and number	Deposited Plan DP1142826
Lot number	231
Section number	-

Project type

Dwelling type	Dwelling house (detached)
Type of alteration and addition	The estimated development cost for my renovation work is \$50,000 or more, and does not include a pool (and/or spa).
N/A	N/A

Certificate Prepared by (please complete before submitting to Council or PCA)


Name / Company Name: Barnson Pty Ltd


ABN (if applicable): 43088342625


Fixtures and systems	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Hot water			
The applicant must install the following hot water system in the development: electric heat pump system that is eligible to create Renewable Energy Certificates under the (Commonwealth) Renewable Energy (Electricity) Regulations 2001 (incorporating Amendment Regulations 2005 (No. 2)).	✓	✓	✓
Lighting			
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.		✓	✓
Fixtures			
The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.		✓	✓
The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.		✓	✓
The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating.		✓	

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans & specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate for the development may be issued.



APPENDIX E

Onsite Waste Management



barnson.
DESIGN . PLAN . MANAGE

Site and Soil Assessment for On-site Effluent Management System

Client: Jorge Diaz

Site Address: 1808 Windeyer Road
Windeyer, NSW 2850

26 March 2025

Our Reference : 46937-ER01_A

© Barnson Pty Ltd 2025. Confidential.

List of Contents

1.0 System Overview	5
2.0 Introduction.....	6
2.1 Overview.....	6
2.2 Key References	6
2.3 Onsite Effluent Management System	6
2.0 Site and Soil Evaluation	10
2.1 Site Evaluators Details	10
2.2 Site Information.....	10
2.3 Desktop Assessment.....	11
2.4 Groundwater Review.....	12
2.5 Surface Water Review	12
2.6 Field Assessment Information	15
2.7 Soil Assessment	16
3.0 Site and Soil Limitation Assessment.....	17
4.0 System Requirements.....	19
4.1 Mid-Western Regional Council Setback Requirements.....	19
All Land Application Systems.....	19
Absorption Systems.....	19
4.2 Design Allowances – AS/NZS1547:2012 Table H1.....	19
5.0 Septic Tank Selection and Calculation.....	20
5.1 Silver Book/ NSW Health Guidelines	20
5.2 AS/NZS 1547:2012 Requirements	20
5.3 System Recommendations.....	21
6.0 Effluent Management	22
6.1 Hydraulic Loading Calculation	22
Proposed Development.....	22
6.2 Design Recommendations.....	23
7.0 Recommendations.....	24

List of Tables

Table 1 : System Overview	5
Table 2: Details	10
Table 3: Site Particulars	10
Table 4: Desktop Assessment Details	11
Table 5: Groundwater Review	12
Table 6: Site Assessment Details	15
Table 7: Soil Assessment Details	16
Table 8: Site Limitation Assessment	17
Table 9: Soil Limitation Assessment	18
Table 10: System Selection Details	21

List of Figures

Figure 1 – Site Location Plan	7
Figure 2 – Buffer and Setback Plan	8
Figure 3 – Buffer and Setback Plan	9
Figure 4 – Groundwater Bore Locations	13
Figure 5 – Groundwater Vulnerability Map GRV_006	14

Appendices

APPENDIX A	Water Balance	26
APPENDIX B	Borehole Logs & Laboratory Results	28
APPENDIX C	Site Setback Requirements	31
APPENDIX D	Absorption Bed Concept Plans	36
APPENDIX E	List of Plates	40

DISCLAIMER

This report has been prepared solely for Jorge Diaz in accordance with the scope provided by the client and for the purpose(s) as outlined throughout this report.

Installation must be by a licensed plumber and Barnson will not be liable for the incorrect installation and/or construction of the system. Installation and construction of the system must hold true to the design recommendations presented in this report. Installation should be in accordance with the prescriptions within AS 1547:2012.

Unless otherwise stated in this report, Barnson has not verified the accuracy or completeness of the data retrieved from online databases and guidance documents. The recommendations for the proposed system as presented in this report are based on historical data obtained for the area. Barnson will not be liable in relation to incorrect recommendations should any information provided by the client be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed.

The accuracy of the advice provided in this report may be limited by unobserved variations in ground conditions across the site in areas between and beyond test locations and by any restrictions in the sampling and testing which was able to be carried out, as well as by the amount of data that could be collected given the project and site constraints. These factors may lead to the possibility that actual ground conditions and materials behaviour observed at the test locations may differ from those which may be encountered elsewhere on the site. If the sub-surface conditions are found to differ from those described in this report, we should be informed immediately to evaluate whether recommendations should be reviewed and amended if necessary.

Project:	Lot 231 DP1142826, 1808 Windeyer Road, Windeyer NSW 2850	
Client:	Jorge Diaz	
Project Number:	46937	
Report Reference:	46937-ER01_A	
Date:	21/03/2025	
Prepared by:		Reviewed by:

Jeremy Wiatkowski
AdvDip Laboratory Operations
Senior Laboratory Technician

Andrew Ruming
BSc
Environmental Geologist

1.0 SYSTEM OVERVIEW

The following table provides a summary of the information for a sustainable onsite effluent management system proposed at Lot 231 DP1142826, 1808 Windeyer Road, Windeyer NSW 2850. The sections of this report that follow, provide site specific details justifying the recommended system.

Table 1 : System Overview

Site Assessor	Jeremy Wiatkowski
Client	Jorge Diaz
Site Location	"Lot 231 DP1142826", 1808 Windeyer Road, Windeyer NSW
Max People Usage	Maximum Usage of 2 people
Proposed Amenities	Kitchen & Bathroom
Water Source	Rainwater roof collection
Estimated Daily Flow (L/day)	240L/Day based on 2 people at 120L/person/day
Tank Recommendation	Standard Septic Tank
Tank Capacity	As per section 6.3 the minimum size tank required is 3000L
Sub Soil Assessment Class	Field assessment and subsequent laboratory tests have classed the subsoil as category 4, as shown in section 3.7.
Sub Soil Recommended Hydraulic Loading mm/day (DIR/DLR)	Bed/trench systems in category 4 soils have a design-loading rate of 10mm/day. (Refer to Table 7).
Recommended Effluent Application Type	Due to the category 4 soil (Clay Loams) it is recommended that an absorption bed be utilised to disperse effluent.
Effluent Design Criteria	<i>As per section 7.0 the minimum application area was determined by calculating the requirements of hydraulic loading. As shown 1 absorption bed, of 12m long x 2m wide is required to dispose of the proposed hydraulic load.</i>
Additional Notes	During construction gypsum to be applied at 1 kg/m ² to the base of the excavated bed/trench to prevent the soil dispersing. The bed/trench shall be closed in, as soon as possible to protect the gypsum from raindrop impact.

2.0 INTRODUCTION

2.1 Overview

Barnson Pty Ltd on behalf of Jorge Diaz has prepared this report for submission to Mid-Western Regional Council. This report provides direction for sustainable on-site effluent management for a proposed development, on Lot 231 DP1142826, at 1808 Windeyer Road, Windeyer NSW (refer **Figure 1 & 2**).

2.2 Key References

The following key references were utilised as part of this assessment:

- AS/NZS 1547:2012. *On-site Domestic Wastewater Management*;
- NSW Government 1998. *On site Sewerage Management for Single Households* (The Silver Book/OSMSH);
- NSW Government 2000. *The Easy Septic Tank Guide*. Developed by Social Change Media for the NSW Department of Local Government;
- NSW Health, 2016. 'Septic Tank and Collection Well Accreditation Guidelines';
- Mid-Western Regional Council Local Environment Plan, 2012;
- Mid-Western Regional Council 'On-Site Sewage Management Plan' (2008);
- Murphy B.W. & Lawrie J.W. 1998. Soil Landscapes of the Dubbo 1:250 000 Sheet Report, DLWC.
- Sydney Catchment Management Authority, 2023. *Designing and Installing On-Site Wastewater Systems*;

2.3 Onsite Effluent Management System

The onsite effluent management system proposed for this site consists of a standard septic tank with primary treated effluent disposed into absorption beds. **Figure 1 & 2** illustrates the site location. **Figure 3** illustrates the proposed buffer, setback areas and proposed application area.

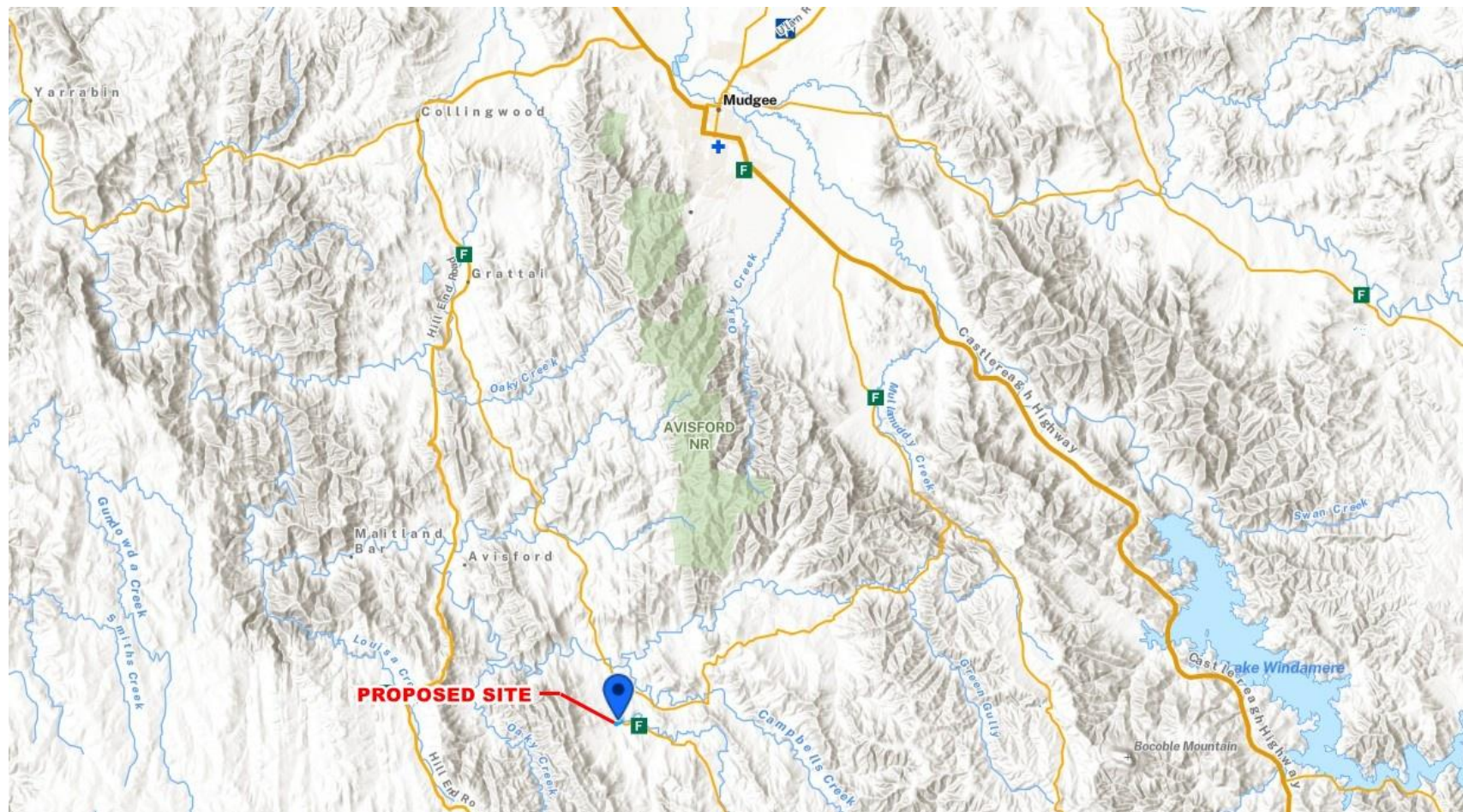


Figure 1 – Site Location Plan

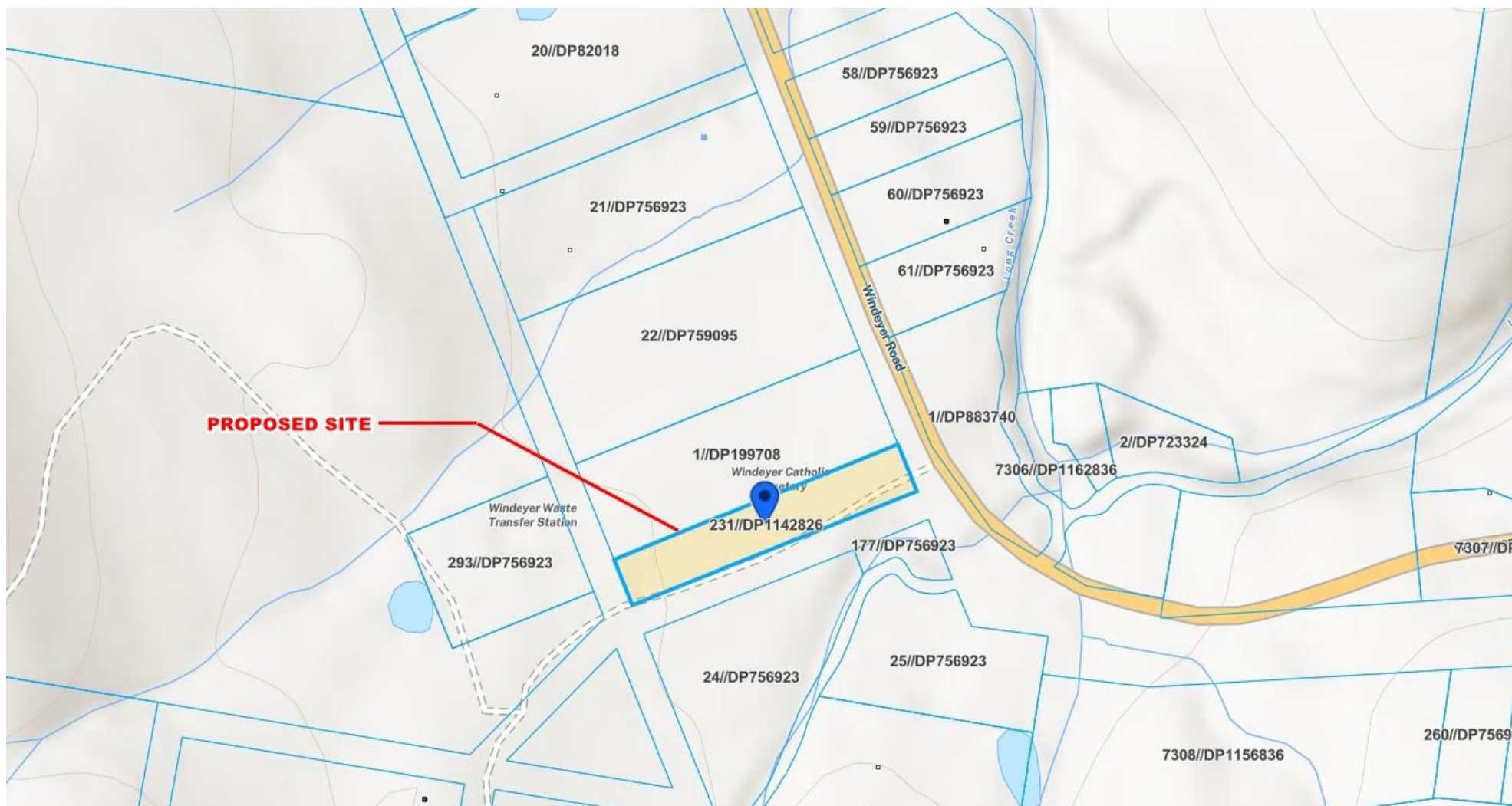


Figure 2 – Buffer and Setback Plan



Figure 3 – Buffer and Setback Plan

BARNSON PTY LTD

phone 1300 BARNSON (1300 227 676)
email generalenquiry@barnson.com.au
web barnson.com.au

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH GENERAL BUILDING DRAWINGS, SPECIFICATIONS & OTHER CONSULTANT DRAWINGS APPLICABLE TO THIS PROJECT. ALL DIMENSIONS IN MILLIMETRES, DO NOT SCALE. DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK. REPORT DISCREPANCIES TO BARNSON PTY LTD. NO PART OF THIS DRAWING MAY BE REPRODUCED IN ANY WAY WITHOUT THE WRITTEN PERMISSION OF BARNSON PTY LTD.

Project

ONSITE SEWAGE DISPOSAL

Client

JORGE DIAZ

Drawing Title

PROPOSED SITE BUFFERS

Site Address

**1808 WINDEYER ROAD
WINDEYER NSW**

Certification

Design JW

Drawn JW

Check AR

Original Size A4

Revision A

Project No

Drawing No

46937

GD01

2.0 SITE AND SOIL EVALUATION

2.1 Site Evaluators Details

The following table provides an overview of the evaluator's particulars.

Table 2: Details

Name / Role	Jeremy Wiatkowski
Role/ Qualifications	Geotechnical Technician
Company	Barnson Pty Ltd
Company Address	1/36 Darling Street Dubbo NSW 2830
Contact Details	1300 BARNSON
Date of Assessment	07/03/2025

2.2 Site Information

The following table provides an overview of the site information.

Table 3: Site Particulars

Address/Locality	1808 Windeyer Road, Windeyer NSW Lot 231 DP1142826
Local Government Area	Mid-Western Regional Council
Owner	██████████
Block Configuration	Approximately 0.7 ha
Intended Water Supply	Rainwater roof collection supplied
Intended Power Supply	Supplied
Local Experience	Care needs to be taken to minimise runoff and erosion. Systems commonly malfunction due to lack of ongoing maintenance. The system is to be inspected and maintained regularly in accordance with manufacturer details, Council requirements, and prescriptions identified in this report.

2.3 Desktop Assessment

The following information was obtained via desktop review of the site.

Table 4: Desktop Assessment Details

Climate Overview¹	Annual Average Rainfall for Mudgee is 678.8mm. Warm summers with large evaporative deficit, cool winters with small evaporative deficit. The mean summer monthly rainfall (January) is 68.2mm. The mean winter rainfall (July) is 53mm.	
Soil Landscape Reference²	Area has been mapped within the 'Mookerawa" Landscape Group. Yellow Soloths are dominant in the area and Red Podzolic Soils are common in the area.	
	Surface Conditions	Hardsetting, copious quartz float on lower slopes
	Drainage	Imperfectly drained
	Available water holding capability	Moderate to low
	Water table depth	May be perched
	Depth to bedrock	>150-200 cm
	Flood hazard	Low to moderate (drainage flats)
	Expected Nutrient deficiencies	Nitrogen, Phosphorous
	Soil Salinity	Low to moderate
	Erosion Hazard	Moderate to high
Underlying Geology³	<i>"Thinly to thickly bedded, muddy, crystal-lithic, rhyolitic to rhyodacitic volcanoclastic sandstone interbedded with lesser tuff, siltstone, phyllitic shale and paraconglomerate".</i>	
Groundwater Review	One water bore was found within 500m of the proposed site, as illustrated in Figure 4 . The area is mapped as being groundwater vulnerable as per the Mid-Western Regional Council LEP map GRV_006 Figure 5 .	

¹ Bureau of Meteorology online Climate Data website

² NSW Soil and Land Information System

³ Dubbo 1:250000

2.4 Groundwater Review

One water bore was identified as occurring within the general area of the allotment. Information relating to historic groundwater report details on water bearing zones and standing water levels is provided in the table below.

Table 5: Groundwater Review

Groundwater Bore Reference	Total Depth (m)	Water Bearing Zones (m)	Standing Water Level (m)	Yield (L/s)	Salinity Description
GW801538 Bore Domestic Approximately 400m North of Site	36.00	16.00-16.20	9.00	0.25	Not Provided
		22.00-22.10	9.00	0.62	

Using available groundwater information from local bores, it can be determined that in the local vicinity the standing water level is greater than 9m below the ground surface and the water bearing zones are greater than 16m below the ground surface.

No groundwater was encounter during the site investigation. From this information it can be determined that in this locality, subsequent contamination by primary treated effluent is not a risk factor.

2.5 Surface Water Review

The proposed site drains towrds the south-east. Long Creek is approximately 100m east of the existing building. Wingraves Gully is approximately 50m south of the existing building.

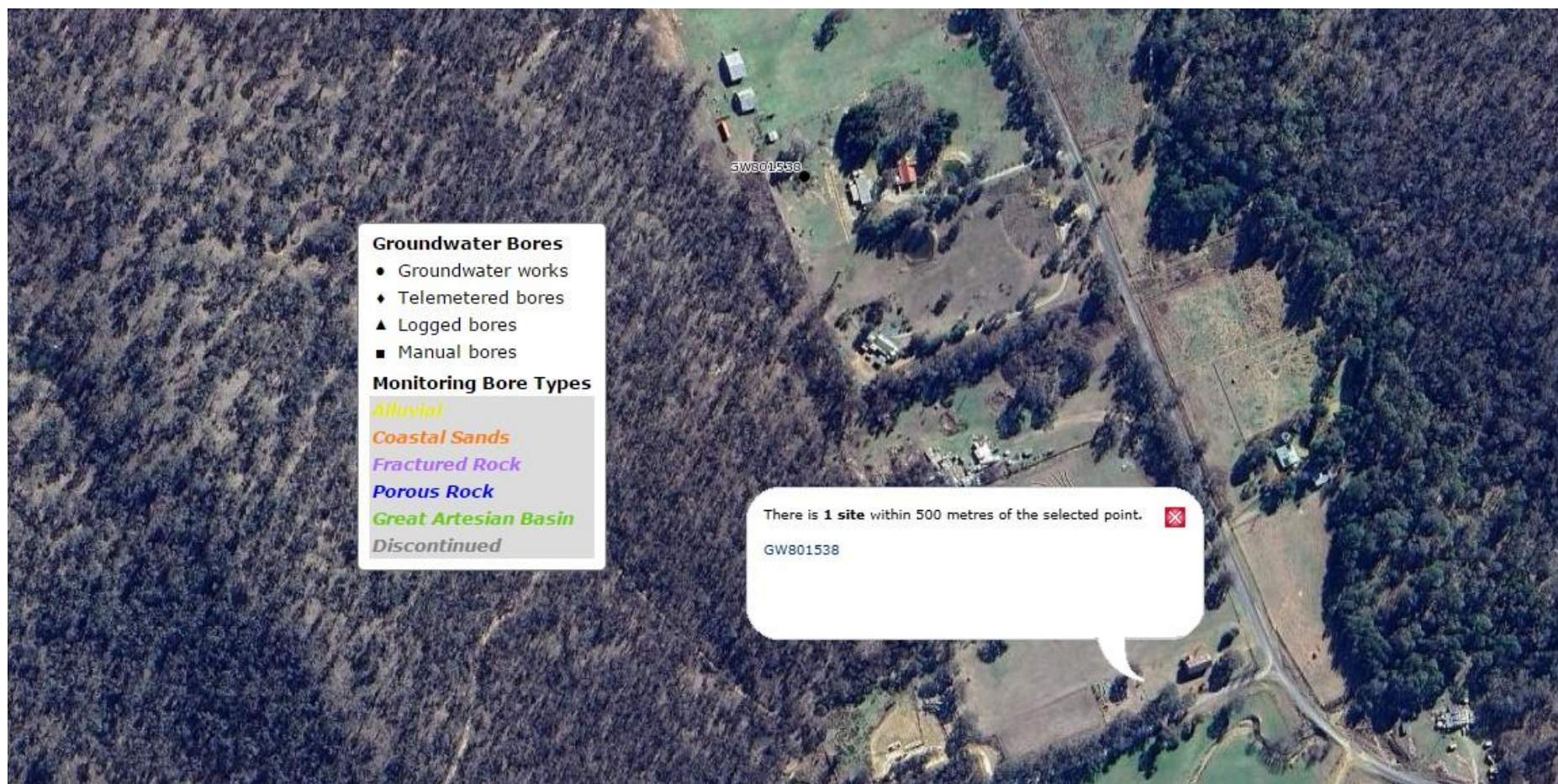


Figure 4 – Groundwater Bore Locations

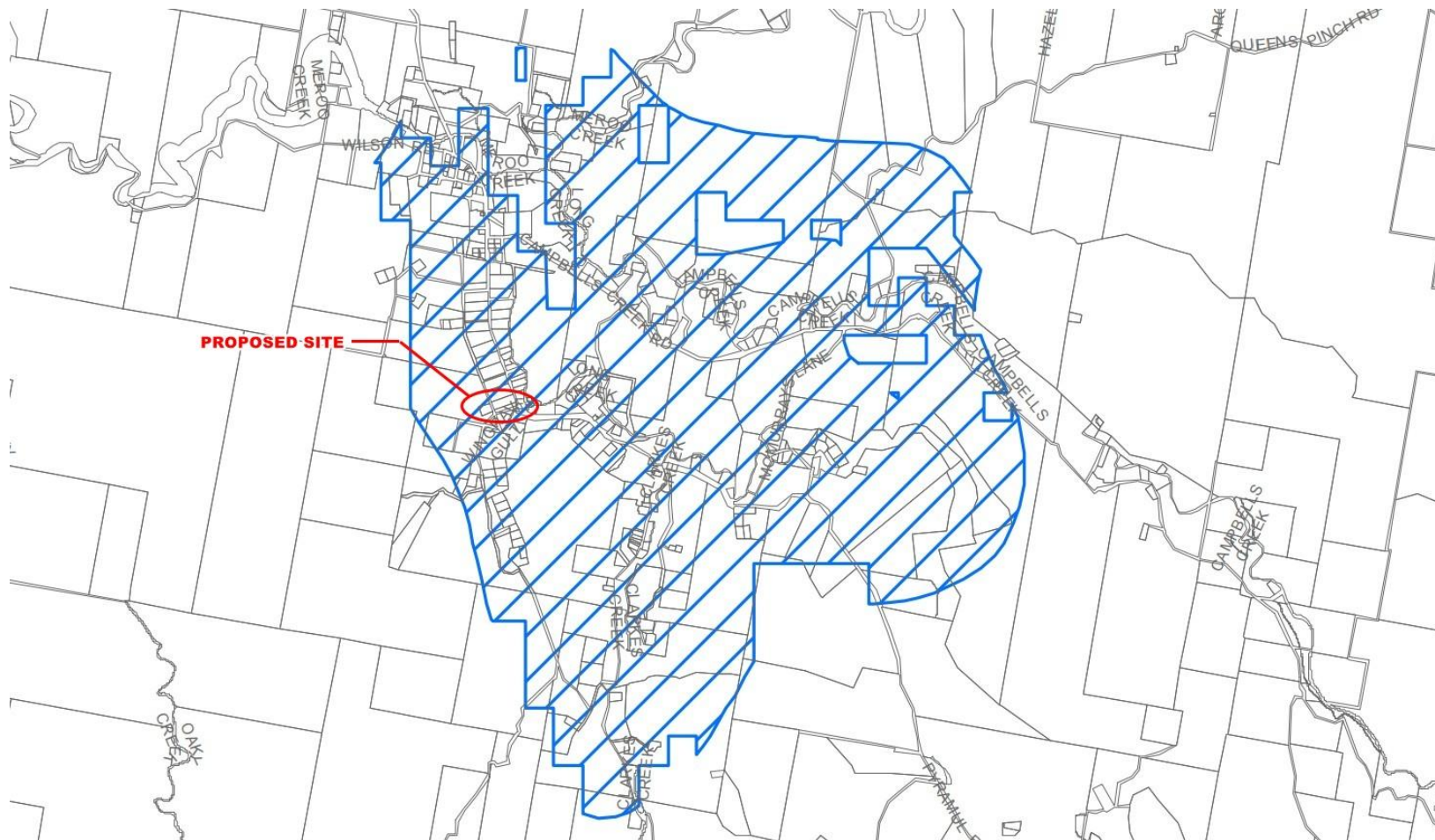


Figure 5 – Groundwater Vulnerability Map GRV_006

2.6 Field Assessment Information

A field inspection was conducted on 07/03/2025. The following table provides detail on the site assessment as well as the field and laboratory results.

Table 6: Site Assessment Details

Water Balance Attached		See <i>Appendix A</i>
Exposure		Good exposure.
Slope		The site has a slight slope to the south-east
Run-On		None
Seepage		None
Erosion Potential		Low due to vegetation cover.
Site Drainage		The proposed site drains towards the south-east. Long Creek is approximately 100m east of the existing building. Wingraves Gully is approximately 50m south of the existing building
Fill		None encountered
Surface rock/Outcrops		None encountered
Is there sufficient land area for:	Application system, including buffers	Yes
	Reserve application system	Yes

2.7 Soil Assessment

A soil sample was collected and returned to Barnson Pty Ltd for analysis on 07/03/2025. The sample was collected at a depth of 800mm during the site inspection as per AS1289.1.2.1.6.5.3. Laboratory report with results are provided at Appendix B. Field assessment parameters were also obtained. The following table provides detail on both field and laboratory assessment results.

Table 7: Soil Assessment Details

Depth to bedrock or hardpan via field assessment		>1.5m
Depth to high soil water table via field assessment		>1.5m
Soil Analysis	pH – subsoil CaCl ₂ (lab), subsoil	4.9
	Electrical conductivity (dS/m) - E _{Ce}	1.8
	Emerson Test Result –subsoils (Lab)	6
	Liquid Limit, Plastic Limit, Plasticity Index, Linear Shrinkage. (%)	LL = 26 PL = 14 PI = 12 – Low Plasticity LS = 3.5 – Low Reactivity See Borelog in Appendix B
	Estimated Soil Category–topsoil, subsoil A, subsoil B,	3,3,4
	Structure massive, weak, high, moderate, strong (Field)	High/Moderate Structured
	Soil Profile description	See Borelog in Appendix B
	Sub soil Permeability (from table 5.2 of AS 1547:2012)	0.5-1.5(k _{sat}) (m/d) 20.8-62.5 (mm/hr) (Infiltration is Moderate)
	Recommended Hydraulic Loading for disposal system (from Table 5.2 of AS 1547:2012)	10mm per day (For effluent disposal beds/trenches)

3.0 SITE AND SOIL LIMITATION ASSESSMENT

The following two limitation tables are a standardised guide to the site and soil characteristics which may limit the suitability of the site for effluent disposal and which require attention through specific management practises. The tables have been reproduced from the NSW Government endorsed 'On-Site Sewerage Management for Single Households' (1998), **Tables 8 and 9**. The highlighted categories represent site and soil conditions of the land covered in this report.

Table 8: Site Limitation Assessment

Site Feature	Relevant System	Minor Limitation	Moderate Limitation	Major Limitation	Restrictive Feature
Flood Potential	All land application systems	> 1 in 20 years		Frequent below 1 in 20 years	Transport in wastewater off site
	All treatment application systems	Components above 1 in 100 years		Components below 1 in 100 years	Transport in wastewater off site system failure
Exposure	All land application systems	High sun and wind exposure		Low sun and wind exposure	Poor evaporation transpiration
Slope %	Surface Irrigation	0-6	6-12	>12	Runoff, erosion potential
	Sub-surface irrigation	0-10	10-20	>20	Runoff, erosion potential
	Absorption	0-10	10-20	>20	Runoff, erosion potential
Landform	All systems	Hillcrests, convex side slopes and plains	Concave side slopes and foot slopes	Drainage plains and incised channels	Groundwater pollution hazard, resurfacing hazard
Run-on and upslope seepage	All land Application Areas	None-low	Moderate	High, diversion not practical	Transport of wastewater off site
Erosion potential	All land application systems	No sign of erosion potential		Indications of erosion e.g. rills, mass failure	Soil degradation and off-site impact
Site drainage	All land application systems	No visible signs of surface dampness		Visible signs of surface dampness, such as moisture-tolerant veg	Groundwater pollution hazard, resurfacing hazard
Fill	All systems	No fill	Fill present		Subsidence
Land area	All systems	Area available		Area not available	Health and pollution risk
Rock and rock outcrop	All land application systems	<10%	10-20%	>20%	Limits system performance
Geology	All land application systems	None		Major geological discontinuities, fractured or highly porous regolith	Groundwater pollution hazard

Table 9: Soil Limitation Assessment

Soil feature	Relevant system	Minor limitation	Moderate limitation	Major limitation	Restrictive feature
Depth to bedrock or hardpan (m)	Surface and sub-surface irrigation	> 1.0	0.5-1.0	< 0.5	Restricts plant growth
	Absorption	> 1.5	1.0-1.5	< 1.0	Groundwater pollution hazard
Depth to seasonal water table (m)	Surface and sub-surface irrigation	> 1.0	0.5-1.0	< 0.5	Groundwater pollution hazard
	Absorption	> 1.5	1.0-1.5	< 1.0	Groundwater pollution hazard
Permeability Category	Surface and sub-surface irrigation	2b, 3 and 4	2a, 5	1 and 6	Excessive runoff and waterlogging
	Absorption	3, 4		1, 2, 5 and 6	Percolation
Coarse fragments %	All systems	0-20	20-45	>40	Restricts plant growth, affects trench installation
Bulk density (g/cc) SL L, CL C	All land application systems	< 1.8 < 1.6 < 1.4		> 1.8 > 1.6 >1.4	restricts plant growth, indicator of permeability
pH	All land application systems	> 6.0	4.5-6.0	-	Reduces plant growth
Electrical conductivity (dS/m)	All land application systems	<4	4-8	>8	Restricts plant growth
Sodicity (ESP)	Irrigation 0-40cm; absorption 0-1.2mtr	0-5	5-10	> 10	Potential for structural degradation
CEC mequiv/100g	Irrigation systems	> 15	5-15	< 5	Nutrient leaching
P sorption kg/ha	All land application systems	> 6000	2000-6000	< 2000	Capacity to immobilise P
Modified Emerson Aggregate Test – (dispersiveness)	All land application systems	Class 3, 4	Class 2	Class 1	Potential for Structural degradation.

4.0 SYSTEM REQUIREMENTS

4.1 Mid-Western Regional Council Setback Requirements

The Mid-Western Regional Council 'On-Site Sewage Management Plan' (2008), provides recommended buffer distances. For this design, the following must be taken into consideration.

All Land Application Systems

- 80m to permanent surface waters (e.g. river, streams, lakes, etc.);
- 50m to domestic groundwater well on applicant's property and 200m to any groundwater well located on a neighbouring property;
- 40m to other waters (e.g. farm dams, intermittent waterways and drainage channels, etc.)

Absorption Systems

- 12m if area up-grade and 6m if area down gradient of property boundary;
- 6m if area is up-gradient and 3m if area is down gradient of swimming pools, driveways and building.

Other site setback requirement as per AS/NZS 1547:2012 are provided in **Appendix C**.

Actual siting of the effluent application area is the responsibility of a licenced plumber. The prescribed buffer areas/setbacks are to be adhered to unless otherwise specified by Council.

4.2 Design Allowances – AS/NZS1547:2012 Table H1

In accordance with AS/NZS1547:2012 Table H1, the recommended design flow allowance for use in Australia, using on site rainwater roof collection supply is 120L/person/day. The maximum number of persons is 2 people.

5.0 SEPTIC TANK SELECTION AND CALCULATION

5.1 Silver Book/ NSW Health Guidelines

The '[On-Site Sewerage Management for Single Households' \(1998\)](#) guideline is based on the NSW Health guideline for septic tank capacity. Therefore, the calculation is the same.

Primary effluent treatment will be provided by a NSW Health accredited septic tank. The [NSW Health 'Septic Tank and Collection Well Accreditation Guidelines' \(2016\)](#), set a sludge allowance of 1550L irrespective of the number of persons or which the septic tank is to be designed. It should be noted that in accordance with this guideline, a septic tank designed for a minimum of 5 persons needs to be de-sludge approximately every 4 years.

The general formula to calculate the minimum septic tank capacity in litres is:

$$S + (DF \times N) = C$$

$$\text{Sludge} + (\text{Daily Flow} \times \text{No. of Persons}) = \text{Capacity of the tank}$$

When DF = 120L/per person/per day and N =2, therefore DF x N =**240L**

$$1550L + 240L = 1790L$$

Table 2 in the NSW Health Guidelines provides a minimum of 2300L tank capacity.

5.2 AS/NZS 1547:2012 Requirements

A more conservative approach is outlined in AS/NZS1547:2012, Appendix J. A more conservative figure of 200L per person for all waste tanks is provided, giving a daily flow volume of 400L for the proposed development. Therefore, a minimum capacity tank of **3000L** is required for a development with a design flow of up to 1000L. This conservative rate is to ensure that the unit has capacity to cope with peak discharge rates or for temporary or unusual overloads and includes no allowance for food waste disposal units. This tank design capacity also allows for the storage of sludge and scum at a rate of 80L/person/year. It should be noted that the higher cost of installing a larger septic tank may be offset by a reduced pump out frequency. Too frequent pump out removes microorganisms needed for degradation of wastewater solids. The longer pump out interval has beneficial implications for conservation of resources in that the volume of seepage requiring treatment and disposal can be reduced significantly.

5.3 System Recommendations

The following table provides details on the system selection.

Table 10: System Selection Details

Consideration of connection to centralised sewerage system	Distance to sewer	>10km
	Potential for future connection?	None planned
	Potential for reticulated water?	None planned
Expected Wastewater volume (litres/day)	Proposed Development –proposed maximum occupancy of 2 people. Typical wastewater design flow is 120L/person per day in accordance with Table H3 of AS/NZS1547:2012 for households with full water reduction facilities, supplied by rainwater roof collection supply. Therefore, 2 people at 120L per person per day gives a total load of 240L/day	
Type of Treatment system best suited	3000L septic tank system– as per NSW Health accredited system - http://www.health.nsw.gov.au/environment/domesticwastewater/Pages/stcw.aspx with primary treated effluent to be distributed to an Absorption Bed	

Water conservation measures should be adapted to the greatest extent possible in the proposed development, particularly in relation to the high water-use activities of showering, clothes washing and toilet flushing. AAA rated plumbing appliances and fittings should be used. Measures including use of front-loading washing machines, low volume shower roses and dual flush toilets can reduce water usage by 30-40%. Detergents low in phosphorous and sodium should be used as much as possible. Following these measures will ensure the greatest lifespan for this effluent treatment and disposal system.

6.0 EFFLUENT MANAGEMENT

Barnson Pty Ltd has analysed the proposed on-site waste management system in accordance with the NSW Government endorsed 'Silver Book' (1998) and the ANZ Standard 1547:2012 On-site Domestic Wastewater Management', with additional advice sought from the Sydney Catchment Management Authority 'Designing and installing On-site Wastewater Systems' 2023 guideline. For this site, given the climate and soil constraints, absorption is considered the most appropriate effluent management device.

6.1 Hydraulic Loading Calculation

Given the proposed development will be connected by rainwater roof collection supply, the daily flow (Q) for the system is calculated as 240L/per day.

The required bed area shall be determined from the following relationship:

$$\text{Length of Absorption Bed} = (Q) / (DLR \times W)$$

Proposed Development

Where Q = 240L, DLR =10 mm/day (Table L1 AS 1547:2012 –Conservative Rate),

W (Width) = 2m

$$\begin{aligned} \text{Length of Bed} &= \left(\frac{240}{10 \times 2m} \right) \\ &= 12m \end{aligned}$$

Therefore, from the above calculation, 1 x 12m long, 2m wide bed will be required for the proposed development with a maximum ususage of 2 people.

6.2 Design Recommendations

Common failures of beds/trenches are often caused by poor installation practices. In addition to specifications outlined in AS/NZS 1547:2012, the following points should also be considered in the bed/trench design/construction which to meet the *minimum* dimensions of **1 bed, 12m long and 2m wide**.

- Beds/trenches are to be built along the contour to ensure even distribution and avoid any section being over loaded;
- Avoid cutting beds into weakened ground;
- Construction is to take place during fine weather. If it rains beds are to be completely covered to protect them from rain damage;
- Where the beds/trenches are dug by an excavator in clay soils, the bed walls are to be scarified to remove any smearing caused by the excavator bucket;
- During construction gypsum to be applied at 1 kg/m² to the base of the trench or bed to prevent the soil dispersing. The trench shall be closed in, as soon as possible to protect the gypsum from raindrop impact.
- All distribution pipes and arches should be laid in accordance with the manufactures instructions;
- If two beds or more are utilised, ensure effluent is distributed evenly via a splitter box or sequencing valve or other appropriate method;
- All distribution pipes and arches should be laid in accordance with the manufactures instructions;
- Consideration can be given to using a pressure dosed system, which would allow for a better, more even distribution of effluent along the trench, and prolong trench life;
- Inspection ports shall be provided for the beds/trenches system. The inspection port shall be installed so as to facilitate monitoring of the effluent level in each trench;
- Trenches/Beds may be gravity fed or pressure dosed using pumps or dosing siphons;
- Vegetation cover must be well maintained to ensure strong growth for maximum uptake of transpiration. The surrounding landscape and vegetation must also be maintained to minimise shading and maximise exposure.
- The beds/trenches should be in an enclosed area protected from vehicle movement or livestock that can cause compaction and premature trench failure;
- The beds/trenches are to be constructed along the contour via laser levelling to ensure the base is exactly level;
- A diversion berm/bank/drain should be built upslope of the trench. This will reduce run on. A design sketch is provided at **Appendix D**.

7.0 RECOMMENDATIONS

As per the 'On-Site Sewerage Management for Single Households' (1998) publication, stakeholders should be aware that all on site systems and components have a finite life and at some point will require replacement. Septic tanks and AWTs' generally require replacement every 25 years, whereas effluent disposal systems can have an expected life between 5-15 years. The owner is encouraged to obtain a copy of the NSW Government "The Easy Septic Guide" (2000) available from - <https://www.olg.nsw.gov.au/wp-content/uploads/Easy-septic-guide.pdf>

As stated in AS1547-2012 section 5.5.3.4, a reserve application area of similar size to the current design should be considered as part of the risk management process to be available on a site for expansion or for resting of the land application system.

The option provided in this report is a primary treatment septic fed into absorption beds. This is to be designed to accept the discharge from the wastewater treatment unit and it convey it securely and evenly to the land application area. The aim is to ensure uniform distribution of the effluent over the design area to help achieve effective aerobic/anaerobic decomposition within the soil. Typical design sketches for a bed/trench system as per AS 1547:2012 and *Design and Installation of On Site Wastewater Treatment* (2023) are provided at **Appendix D**.

Installation instructions shall be provided by the manufacturer or designer. Barnson will not be liable for the incorrect installation and/or construction of the system. Installation should be in accordance with the prescriptions within AS 1547:2012.

Barnson has not verified the accuracy or completeness of this data, except otherwise stated in this report. The recommendations for the proposed system as suggested in this report are based on historical data obtained for the area. Barnson will not be liable in relation to incorrect recommendations should any information provided by the client be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed.

The accuracy of geotechnical engineering advice provided in this report may be limited by unobserved variations in ground conditions across the site in areas between and beyond test locations and by any restrictions in the sampling and testing which was able to be carried out, as well as by the amount of data that could be collected given the project and site constraints.

These factors may lead to the possibility that actual ground conditions and materials behaviour observed at the test locations may differ from those which may be encountered elsewhere on the site.

If the sub-surface conditions are found to differ from those described in this report, we should be informed immediately to evaluate whether recommendations should be reviewed and amended if necessary.

Please do not hesitate to contact the undersigned if you have enquiries regarding this report.

Yours Faithfully

Reviewed By



Jeremy Wiatkowski
Laboratory Technician

Andrew Ruming
Environmental Geologist

barnson.

APPENDIX A

Water Balance

Barnson Job No	46937-ER01_A	
Location :	Windeyer	

Design Wastewater Flow	Q	l/day	240
Design Loading Rate	R	mm/day	10

Climate Zone	3 C	As per Soil Landscapes of Dubbo 1:250 000 Dropbox
--------------	-----	--

1	2	3	4	5	6	7	8	9	
Month	Pan evap E (mm)	Evapo Transpiration Et (ET=0.75E)mm	Rainfall R (mm)	Retained Rainfall Rr (Rr=0.75R) mm	DLR per Month (mm)	Disposal Rate (3-5+6) mm	Effluent applied per mo (L)	Size of Area (8/7) m ²	Days in Month
Jan	229	171.75	94	70.5	310	411.25	7440	18.09118541	31
Feb	178	133.5	86	64.5	290	359	6960	19.38718663	29
Mar	155	116.25	76	57	310	369.25	7440	20.14895058	31
Apr	104	78	64	48	300	330	7200	21.81818182	30
May	51	38.25	70	52.5	310	295.75	7440	25.15638208	31
Jun	46	34.5	75	56.25	300	278.25	7200	25.87601078	30
Jul	41	30.75	60	45	310	295.75	7440	25.15638208	31
Aug	58	43.5	66	49.5	310	304	7440	24.47368421	31
Sep	89	66.75	60	45	300	321.75	7200	22.37762238	30
Oct	130	97.5	81	60.75	310	346.75	7440	21.45638068	31
Nov	165	123.75	78	58.5	300	365.25	7200	19.71252567	30
Dec	229	171.75	96	72	310	409.75	7440	18.15741306	31
Mean area								21.8m ²	

Month	First trial area	Application rate	Disposal rate	mm	Increase in Depth of Stored Effluent	Depth of Effluent for Mo	Increase in Depth of Effluent	Computed	Reset if Et<0	Equiv Storage
Dec	24m ²	310	409.75	-99.75	-332.5	0	-332.5	-332.5	0	0
Jan		310	411.25	-101.25	-337.5	0	-337.5	-337.5	0	0
feb		290	359	-69	-230	0	-230.0	-230.0	0	0
Mar		310	369.25	-59.25	-197.5	0	-197.5	-197.5	0	0
Apr		300	330	-30	-100	0	-100.0	-100.0	0	0
May		310	295.75	14.25	47.5	0	47.5	47.5	47.5	1140
Jun		300	278.25	21.75	72.5	47.5	120.0	120.0	120	2880
Jul		310	295.75	14.25	47.5	120	167.5	167.5	167.5	4020
Aug		310	304	6	20	167.5	187.5	187.5	187.5	4500
Sep		300	321.75	-21.75	-72.5	187.5	115.0	115.0	115	2760
Oct		310	346.75	-36.75	-122.5	115	-7.5	-7.5	0	0
Nov		300	365.25	-65.25	-217.5	0	-217.5	-217.5	0	0
Dec		310	409.75	-99.75	-332.5	0	-332.5	-332.5	0	0
Jan		310	411.25	-101.25	-337.5	0	-337.5	-337.5	0	0
Feb		290	359	-69	-230	0	-230.0	-230.0	0	0
Mar		310	369.25	-59.25	-197.5	0	-197.5	-197.5	0	0
Apr		300	330	-30	-100	0	-100.0	-100.0	0	0
May		310	295.75	14.25	47.5	0	47.5	47.5	47.5	1140

Estimated area of effluent drainfield	24m ²
Maximum depth of stored effluent (must not exceed 350mm)	187.5mm
Bed/Trench dimensions	2000mm
Length of bed/trench required	12m
<20m lengths of bed/trench	0.6



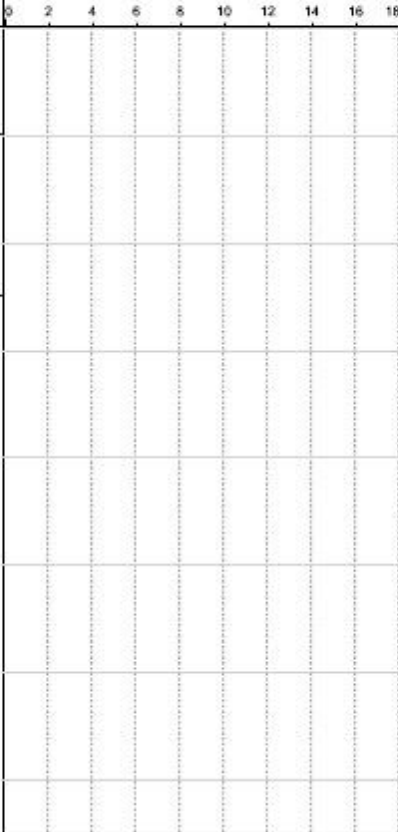


Trench Depth	450
--------------	-----



APPENDIX B

Borehole Logs & Laboratory Results

Latitude :	Location :	1808 Windeyer Road, Windeyer NSW	Job Number :	46937
Longitude :	Logged By :	David Brown	Client :	Jorge Diaz
Total Depth : 1.5 m	Date :	07/03/2025	Project :	Septic Design

Drilling Method	Depth (m)	Graphic Log	Classification Code	Material Description	DCP Graph	Samples
						Disturbed sample
			TS	Topsoil Sandy SILT very stiff, low plasticity, pale grey-brown, fine grained sand, w < pl.		
	0.2		ML	Alluvial Sandy SILT very stiff to hard, low plasticity, pale brown, fine grained sand, trace fine sized gravel, w < pl.		
	0.5		ML	Alluvial Clayey to sandy SILT hard, low plasticity, pale brown, fine grained sand, with fine to medium sized gravel, w < pl.		
	1					LS=3.5%, PI=12%
				Borehole 1 Terminated at 1.5m		

Material Test Report

Report Number: 46937-1
Issue Number: 1
Date Issued: 17/03/2025
Client: Jorge Diaz
1808 Windeyer Road, Windeyer NSW 2850
Contact: Jorge Diaz
Project Number: 46937
Project Name: Septic Design
Project Location: 1808 Windeyer Road, Windeyer NSW
Work Request: 12040
Sample Number: D25-12040A
Date Sampled: 07/03/2025
Dates Tested: 07/03/2025 - 13/03/2025
Sampling Method: AS 1289.1.2.1 6.5.3 - Power auger drilling
Site Selection: Selected by Client
Sample Location: Borehole 1, Depth: 800mm
Material: Brown Clayey Sandy SILT With Gravel

barnson.

Barnson Pty Ltd

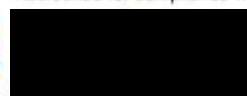
Dubbo Laboratory

16 L Yarrandale Road Dubbo NSW 2830

Phone: 1300 BARNSON

Email: jeremy@barnson.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Jeremy Wiatkowski
Geotechnical Technician

NATA Accredited Laboratory Number: 9605

Atterberg Limit (AS1289 3.1.2 & 3.2.1 & 3.3.1)		Min	Max
Sample History	Oven Dried		
Preparation Method	Dry Sieve		
Liquid Limit (%)	26		
Plastic Limit (%)	14		
Plasticity Index (%)	12		

Linear Shrinkage (AS1289 3.4.1)		Min	Max
Moisture Condition Determined By	AS 1289.3.1.2		
Linear Shrinkage (%)	3.5		
Cracking Crumbling Curling	None		

Emerson Class Number of a Soil (AS 1289 3.8.1)		Min	Max
Emerson Class	6		
Soil Description	Brown Clayey Sandy SILT With Gravel		
Nature of Water	Distilled		
Temperature of Water (°C)	30		



APPENDIX C

Site Setback Requirements

TABLE R1
GUIDELINES FOR HORIZONTAL AND VERTICAL SETBACK DISTANCES
(to be used in conjunction with Table R2)

Site feature	Setback distance range (m) (See Note 1)	Site constraint items of specific concern (from Table R2) (see Note 1)
	<i>Horizontal setback distance (m)</i>	
Property boundary	1.5 – 50 (see Note 2)	A, D, J
Buildings/houses	2.0 – > 6 (see Note 3)	A, D, J
Surface water (see Note 4)	15 – 100	A, B, D, E, F, G, J
Bore, well (see Notes 5 and 6)	15 – 50	A, C, H, J
Recreational areas (Children's play areas, swimming pools and so on) (see Note 7)	3 – 15 (see Notes 8 and 9)	A, E, J
In-ground water tank	4 – 15 (see Note 10)	A, E, J
Retaining wall and Embankments, escarpments, cuttings (see Note 11)	3.0 m or 45° angle from toe of wall (whichever is greatest)	D, G, H
	<i>Vertical setback distance (m)</i>	
Groundwater (see Notes 5, 6, and 12)	0.6 – > 1.5	A, C, F, H, I, J
Hardpan or bedrock	0.5 – ≥ 1.5	A, C, J
NOTES: 1 The overall setback distance should be commensurate with the level of risk to public health and the environment. For example, the maximum setback distance should be adopted where site/system features are on the high end of the constraint scale. The setback distance should be based on an evaluation of the constraint items and corresponding sensitive features in Table R2 and how these interact to provide a pathway or barrier for wastewater movement. 2 Subject to local regulatory rules and design by a suitably qualified and experienced person, the separation of a drip line system from an upslope boundary, for slopes greater than 5%, may be reduced to 0.5 m.		

TABLE R1
GUIDELINES FOR HORIZONTAL AND VERTICAL SETBACK DISTANCES
(to be used in conjunction with Table R2) (continued)

3	Setback distances of less than 3 m from houses are appropriate only where a drip irrigation land application system is being used with low design irrigation rates, where shallow subsurface systems are being used with equivalent low areal loading rates, where the risk of reducing the bearing capacity of the foundation or damaging the structure is low, or where an effective barrier (designed by a suitably qualified and experienced person) can be installed. This may require consent from the regulatory authority.
4	Setback distance from surface water is defined as the areal edge of the land application system to the edge of the water. Where land application areas are planned in a water supply catchment, advice on adequate buffer distances should be sought from the relevant water authority and a hydrogeologist. Surface water, in this case, refers to any fresh water or geothermal water in a river, lake, stream, or wetland that may be permanently or intermittently flowing. Surface water also includes water in the coastal marine area and water in man-made drains, channels, and dams unless these are to specifically divert surface water away from the land application area. Surface water excludes any water in a pipe or tank.
5	Highly permeable stony soils and gravel aquifers potentially allow microorganisms to be readily transported up to hundreds of metres down the gradient of an on-site system (see R3, Table 1 in Pang et al. 2005). Maximum setback distances are recommended where site constraints are identified at the high scale for items A, C, and H. For reading and guidance on setback distances in highly permeable soils and coarse-grained aquifers see R3. As microbial removal is not linear with distance, data extrapolation of experiments should not be relied upon unless the data has been verified in the field. Advice on adequate buffer distances should be sought from the relevant water authority and a hydrogeologist.
6	Setback distances from water supply bores should be reviewed on a case-by-case basis. Distances can depend on many factors including soil type, rainfall, depth and casing of bore, direction of groundwater flow, type of microorganisms, existing quality of receiving waters, and resource value of waters.
7	Where effluent is applied to the surface by covered drip or spray irrigation, the maximum value is recommended.
8	In the case of subsurface application of primary treated effluent by LPED irrigation, the upper value is recommended.
9	In the case of surface spray, the setback distances are based on a spray plume with a diameter not exceeding 2 m or a plume height not exceeding 0.5 m above finished surface level. The potential for aerosols being carried by the wind also needs to be taken into account.
10	It is recommended that land application of primary treated effluent be down gradient of in-ground water tanks.
11	When determining minimum distances from retaining walls, embankments, or cut slopes, the type of land application system, soil types, and soil layering should also be taken into account to avoid wastewater collecting in the subsoil drains or seepage through cuts and embankments. Where these situations occur setback clearances may need to be increased. In areas where slope stability is of concern, advice from a suitably qualified and experienced person may be required.
12	Groundwater setback distance (depth) assumes unsaturated flow and is defined as the vertical distance from the base of the land application systems to the highest seasonal water table level. To minimise potential for adverse impacts on groundwater quality, minimum setback distances should ensure unsaturated, aerobic conditions in the soil. These minimum depths will vary depending on the scale of site constraints identified in Table R2. Where groundwater setback is insufficient, the ground level can be raised by importing suitable topsoil and improving effluent treatment. The regulatory authority should make the final decision in this instance. (See also the guidance on soil depth and groundwater clearance in Tables K1 and K2.)

TABLE R2
SITE CONSTRAINT SCALE FOR DEVELOPMENT OF SETBACK DISTANCES

(used as a guide in determining appropriate setback distances from ranges given in Table R1)

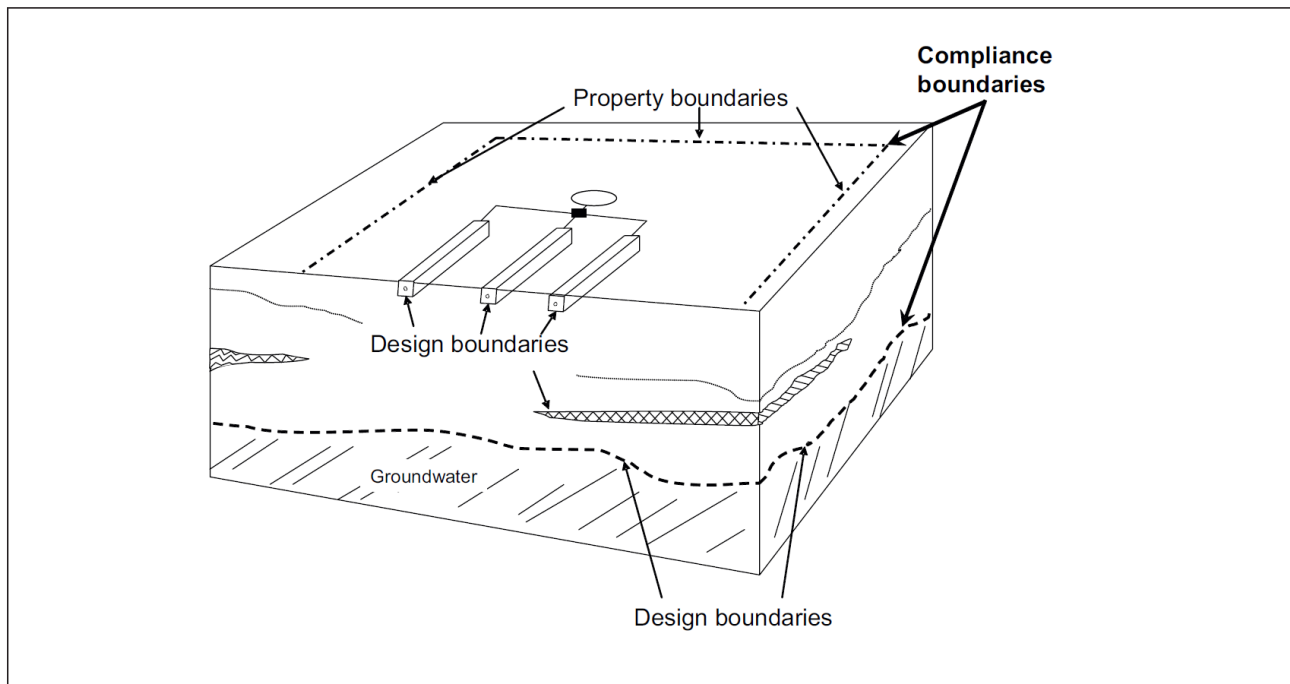
Item	Site/system feature	Constraint scale (see Note 1)		Sensitive features
		LOWER	HIGHER	
		Examples of constraint factors (see Note 2)		
A	Microbial quality of effluent (see Note 3)	Effluent quality consistently producing ≤ 10 cfu/100 mL <i>E. coli</i> (secondary treated effluent with disinfection)	Effluent quality consistently producing $\geq 10^6$ cfu/100 mL <i>E. coli</i> (for example, primary treated effluent)	Groundwater and surface pollution hazard, public health hazard
B	Surface water (see Note 4)	Category 1 to 3 soils (see Note 5) no surface water down gradient within > 100 m, low rainfall area	Category 4 to 6 soils, permanent surface water <50 m down gradient, high rainfall area, high resource/environmental value (see Note 6)	Surface water pollution hazard for low permeable soils, low lying or poorly draining areas
C	Groundwater	Category 5 and 6 soils, low resource/environmental value	Category 1 and 2 soils, gravel aquifers, high resource/environmental value	Groundwater pollution hazard
D	Slope	0 – 6% (surface effluent application) 0 – 10% (subsurface effluent application)	> 10% (surface effluent application), > 30% subsurface effluent application	Off-site export of effluent, erosion
E	Position of land application area in landscape (see Note 6).	Downgradient of surface water, property boundary, recreational area	Upgradient of surface water, property boundary, recreational area	Surface water pollution hazard, off-site export of effluent
F	Drainage	Category 1 and 2 soils, gently sloping area	Category 6 soils, sites with visible seepage, moisture tolerant vegetation, low lying area	Groundwater pollution hazard
G	Flood potential	Above 1 in 20 year flood contour	Below 1 in 20 year flood contour	Off-site export of effluent, system failure, mechanical faults
H	Geology and soils	Category 3 and 4 soils, low porous regolith, deep, uniform soils	Category 1 and 6 soils, fractured rock, gravel aquifers, highly porous regolith	Groundwater pollution hazard for porous regolith and permeable soils
I	Landform	Hill crests, convex side slopes, and plains	Drainage plains and incise channels	Groundwater pollution hazard, resurfacing hazard
J	Application method	Drip irrigation or subsurface application of effluent	Surface/above ground application of effluent	Off-site export of effluent, surface water pollution

NOTES:

- Scale shows the level of constraint to siting an on-site system due to the constraints identified by SSE evaluator or regulatory authority. See Figures R1 and R2 for examples of on-site system design boundaries and possible site constraints.
- Examples of typical siting constraint factors that may be identified either by SSE evaluator or regulatory authority. Site constraints are not limited to this table. Other site constraints may be identified and taken into consideration when determining setback distances.

TABLE R2
SITE CONSTRAINT SCALE FOR DEVELOPMENT OF SETBACK DISTANCES
(used as a guide in determining appropriate setback distances from ranges given
in Table R1) (continued)

- 3 The level of microbial removal for any on-site treatment system needs to be determined and it should be assumed that unless disinfection is reliably used then the microbial concentrations will be similar to primary treatment. Low risk microbial quality value is based on the values given in ARC (2004), ANZECC and ARMCANZ (2000), and EPA Victoria (*Guidelines for environmental management: Use of reclaimed water* 2003).
- 4 Surface water, in this case, refers to any fresh water or geothermal water in a river, lake, stream, or wetland that may be permanently or intermittently flowing. Surface water also includes water in the coastal marine area and water in man-made drains, channels, and dams unless these are to specifically divert surface water away from the land application area. Surface water excludes any water in a pipe or tank.
- 5 The soil categories 1 to 6 are described in Table 5.1. Surface water or groundwater that has high resource value may include potable (human or animal) water supplies, bores, wells, and water used for recreational purposes. Surface water or groundwater of high environmental value include undisturbed or slightly disturbed aquatic ecosystems as described in ANZECC and ARMCANZ (2000).
- 6 The regulatory authority may reduce or increase setback distances at their discretion based on the distances of the land application up or downgradient of sensitive receptors.



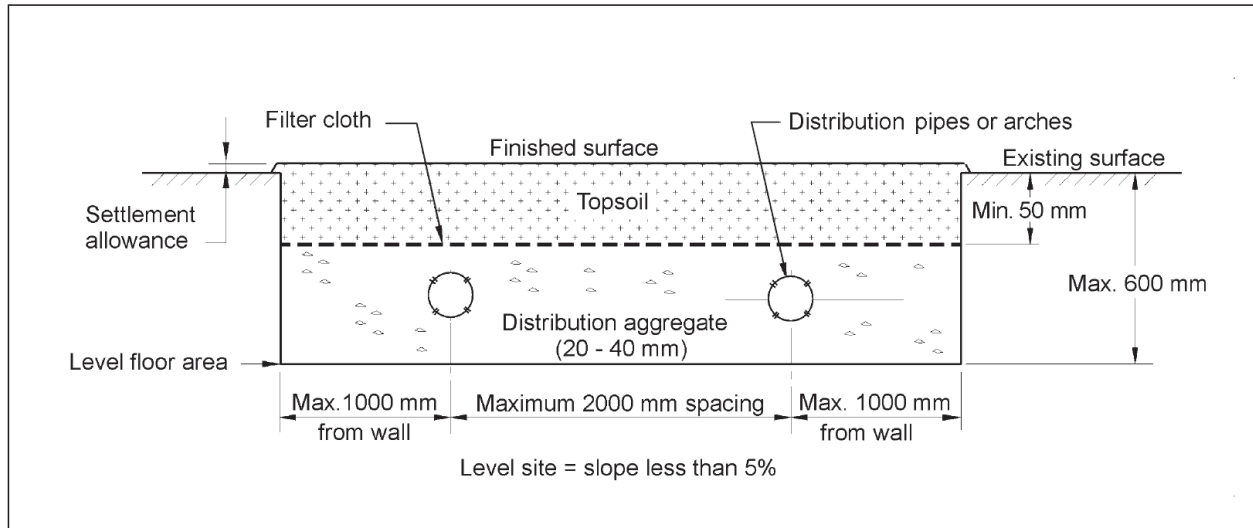
(Adapted from USEPA 2002)

FIGURE R1 EXAMPLE OF DESIGN AND COMPLIANCE BOUNDARIES FOR APPLICATION OF SETBACK DISTANCES FOR A SOIL ABSORPTION SYSTEM



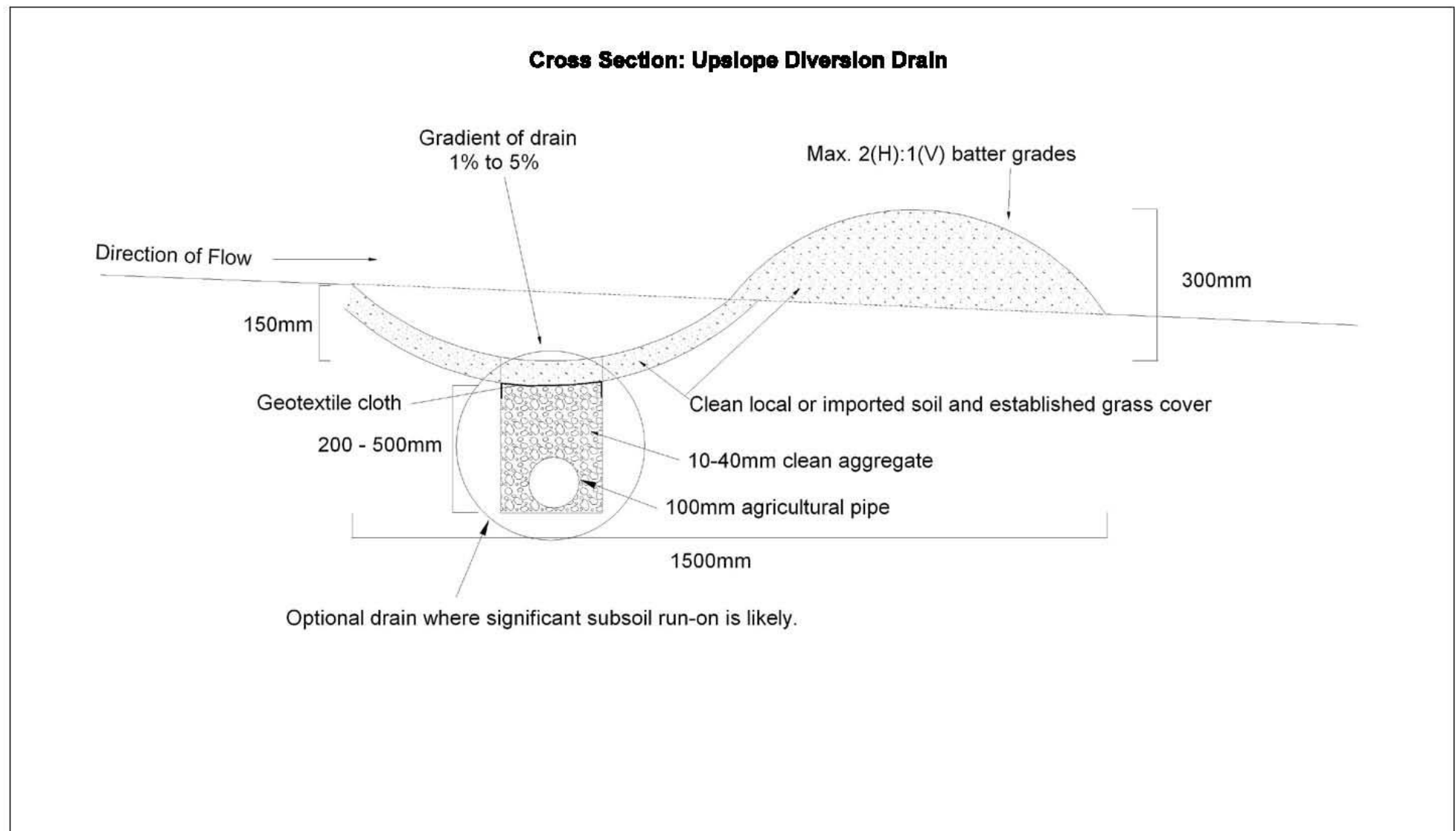
APPENDIX D

Absorption Bed Concept Plans



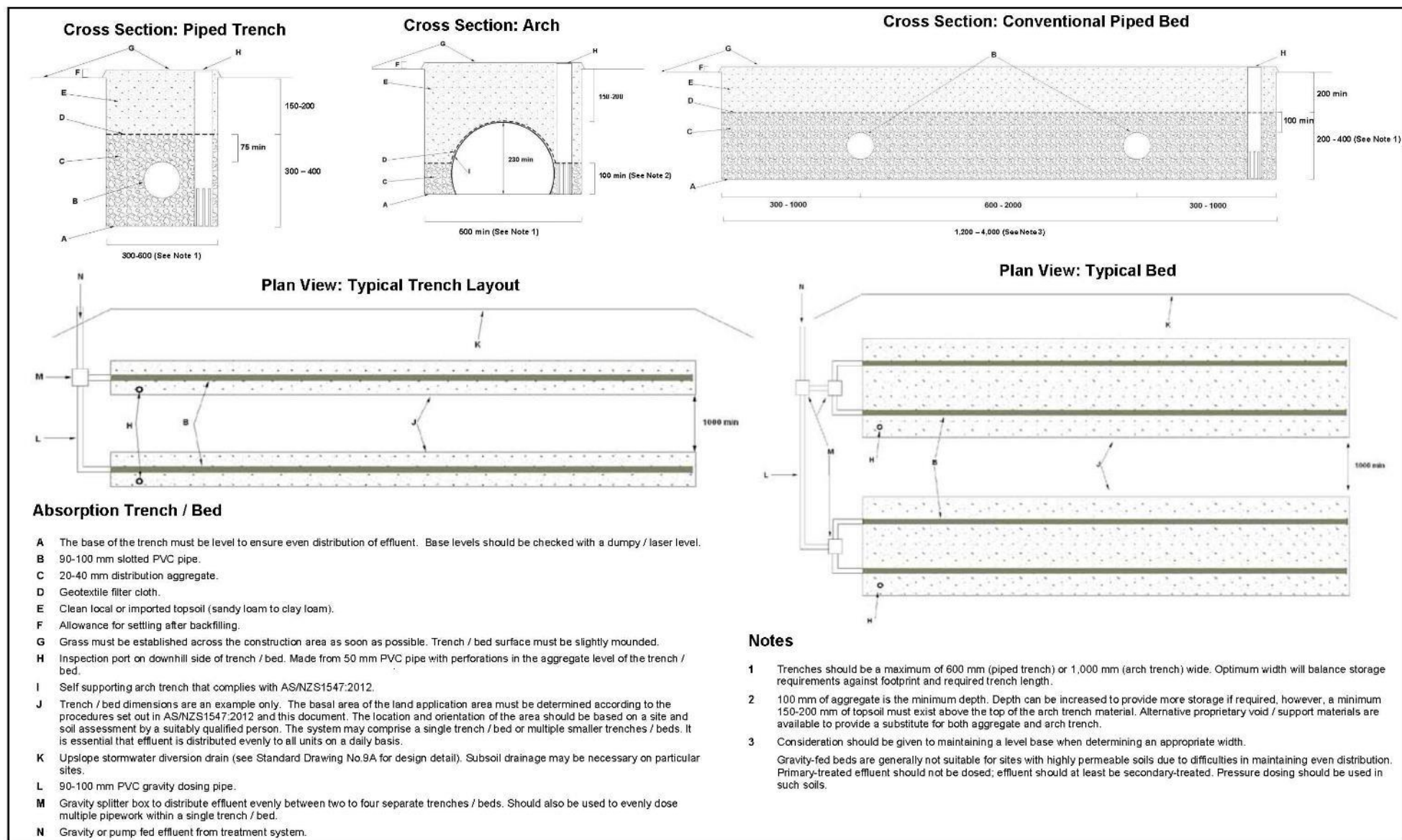
NOTE: LPED lines can be used instead of distribution pipes when dose loading effluent into beds.

FIGURE L5 CONVENTIONAL BED



Standard Drawing 10A - Upslope Diversion Drain

(not to scale)



Standard Drawing 10B - Absorption Trench / Bed
(not to scale)

barnson.

APPENDIX E

List of Plates



Plate 1 – Overview of proposed site



Plate 2 – Overview of proposed site

barnson.

APPENDIX F
BFAR



barnson.
DESIGN . PLAN . MANAGE

Bush Fire Assessment Report

Client: Jorge Diaz

Site Address: 1808 Windeyer Road, Windeyer

21/05/2025

Our Reference: 46937-PR01_A

© Barnson Pty Ltd 2025. Confidential.

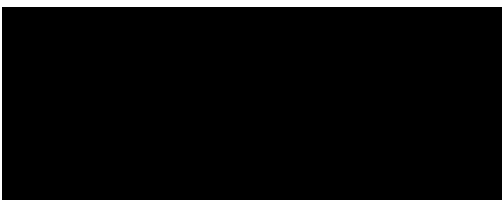
DISCLAIMER

This report has been prepared solely for **Jorge Diaz** in accordance with the scope provided by the client and for the purpose(s) as outlined throughout this report.

Barnson Pty Ltd accepts no liability or responsibility for or in respect of any use or reliance upon this report and its supporting material by anyone other than the client.

Project Name:	Bush Fire Assessment Report for change of use to a dwelling at 1808 Windeyer Road, Windeyer
Client:	Jorge Diaz
Project Number:	46397
Report Reference:	46397-PR01_A
Date:	21 May 2025

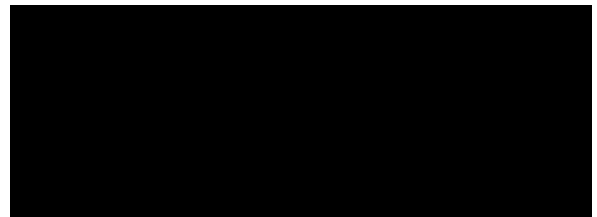
Prepared by:



Seb Minehan

B. Human Geog UOW, M.Urb. Reg. Plan
Town Planner

Reviewed by:



Jack Massey

B. Urb & Reg. Planning
Senior Town Planner

Contents

1. INTRODUCTION.....	5
1.1. Background.....	5
1.2. Proposed Development.....	5
1.3. Legislative Requirements	5
2. the site & its surrounds	7
2.1. Site Location	7
2.2. Site Details.....	7
2.3. Environmental Considerations	9
3. Bush Fire Assessment	10
3.1. Methodology	10
3.2. Bush Fire Fuels.....	10
3.3. Topography	13
3.4. Fire Weather Area.....	14
3.5. Asset Protection Zone Determination	14
3.6. Bushfire Attack Level Assessment	15
4. Bush Fire Protection Measures.....	17
4.1. Introduction	17
4.2. Aims and Objectives of PBP	17
4.3. Objectives for Infill Development.....	18
4.4. Asset Protection Zones	18
4.5. Access Standards.....	19
4.6. Water Supplies.....	20
4.7. Electricity and Gas Services	21
4.8. Construction Standards.....	22
4.9. Landscaping.....	22
4.10. Emergency Management.....	23
5. Recommendations.....	24
6. Conclusion.....	26
7. References.....	27

List of Tables

Table 1 – Asset Protection Zone Determination.....	Error! Bookmark not defined.
Table 2 – BAL Inputs.....	Error! Bookmark not defined.
Table 3 – Bushfire Attack Levels.....	Error! Bookmark not defined.
Table 4 Asset Protection Zones	Error! Bookmark not defined.

List of Figures

Figure 1 – Bush Fire Prone Land Map	Error! Bookmark not defined.
Figure 2 – Site Location	Error! Bookmark not defined.
Figure 3 – Site Aerial.....	Error! Bookmark not defined.
Figure 4 – Zoning Map.....	Error! Bookmark not defined.
Figure 5 – Vegetation Classification	Error! Bookmark not defined.
Figure 6 – Topography	Error! Bookmark not defined.

Appendices

APPENDIX A	Development Plans.....	28
APPENDIX B	Deposited Plan	29
APPENDIX C	APZ Requirements	30

1. INTRODUCTION

1.1. Background

This Bush Fire Assessment Report (BFAR) has been prepared to accompany a Development Application (DA) for a change of use from a church to residential dwelling on Lot 231 DP 1142826, known as 1808 Windeyer Road, Windeyer.

1.2. Proposed Development

The proposed development involves the change of use from an existing church to a dwelling and associated infrastructure. An existing cemetery is located onsite which will not be impacted. The site plan of the proposed development has been provided in Appendix A of this report.

1.3. Legislative Requirements

1.3.1. Environmental Planning and Assessment Act 1979

Consultation and Development Consent – Certain Bush Fire Prone Land

Section 4.14 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) requires that development consent for the carrying out of development, other than subdivision of land that could be lawfully used for residential purposes or development for the purpose of a special fire protection purpose, cannot be granted unless the consent authority:

- (a) is satisfied that the development conforms to the specifications and requirements of the version (as prescribed by the regulations) of the document entitled *Planning for Bush Fire Protection* prepared by the NSW Rural Fire Service in co-operation with the Department (or, if another document is prescribed by the regulations for the purposes of this paragraph, that document) that are relevant to the development (the relevant specifications and requirements), or
- (b) has been provided with a certificate by a person who is recognised by the NSW Rural Fire Service as a qualified consultant in bush fire risk assessment stating that the development conforms to the relevant specifications and requirements.

This report has been prepared to provide the consent authority with sufficient information in order to demonstrate the development complies with the *Planning for Bush Fire Protection Guidelines*.

Bush Fire Prone Land

The subject site is designated as bush fire prone land, pursuant to Section 10.3 of the EP&A Act. The site is identified as containing Category 1, and 3 Vegetation on the Bush Fire Prone Land Map as shown in Figure 1 below.

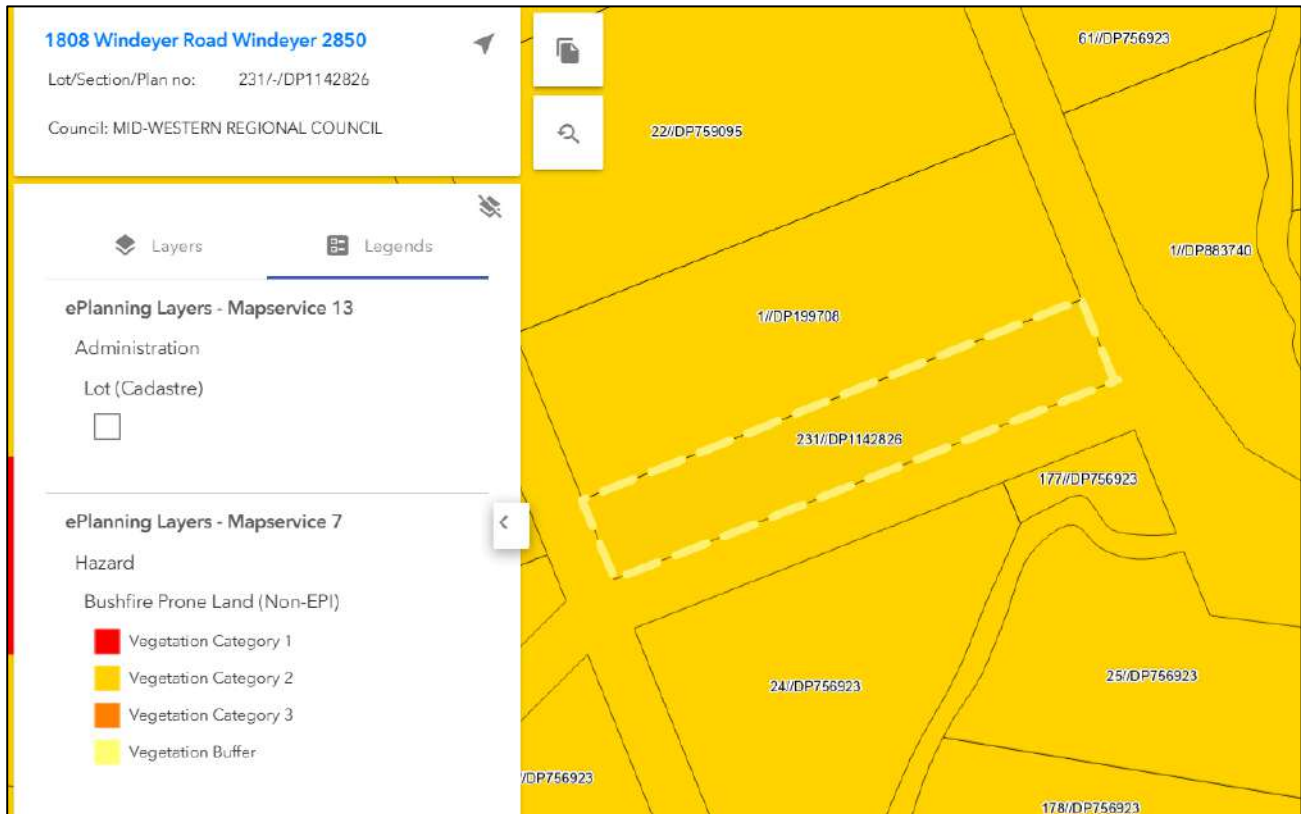


Figure 1 – Bush Fire Prone Land Map

Source: (NSW Government Spatial Services, 2023)

Planning for Bush Fire Protection

The New South Wales's Rural Fire Service's (RFS) *Planning for Bush Fire Protection 2019* (PBP) applies to all DAs in bush fire prone land. This report has been prepared to address the requirements of PBP as an infill development. Specifically, Section 7 of PBP has been addressed throughout this report.

2. THE SITE & ITS SURROUNDS

2.1. Site Location

The site is located in a rural area located approximately 22.7km south of Mudgee, as shown in Figure 2 below. The site is located in the Oberon Local Government Area.



Figure 2 – Site Location

Source: (NSW Government Spatial Services, 2023)

2.2. Site Details

The site is comprised of Lot 231 DP 1142826 and has an overall area of 6,733m². The Deposited Plan is provided in Appendix B of this report.

The site has direct frontage to Windeyer Road, which is a bitumen sealed local road. The site contains an existing church, cemetery, and associated structures, as shown in Figure 3 below.



Figure 3 – Site Aerial

Source: (NearMaps, 2023)

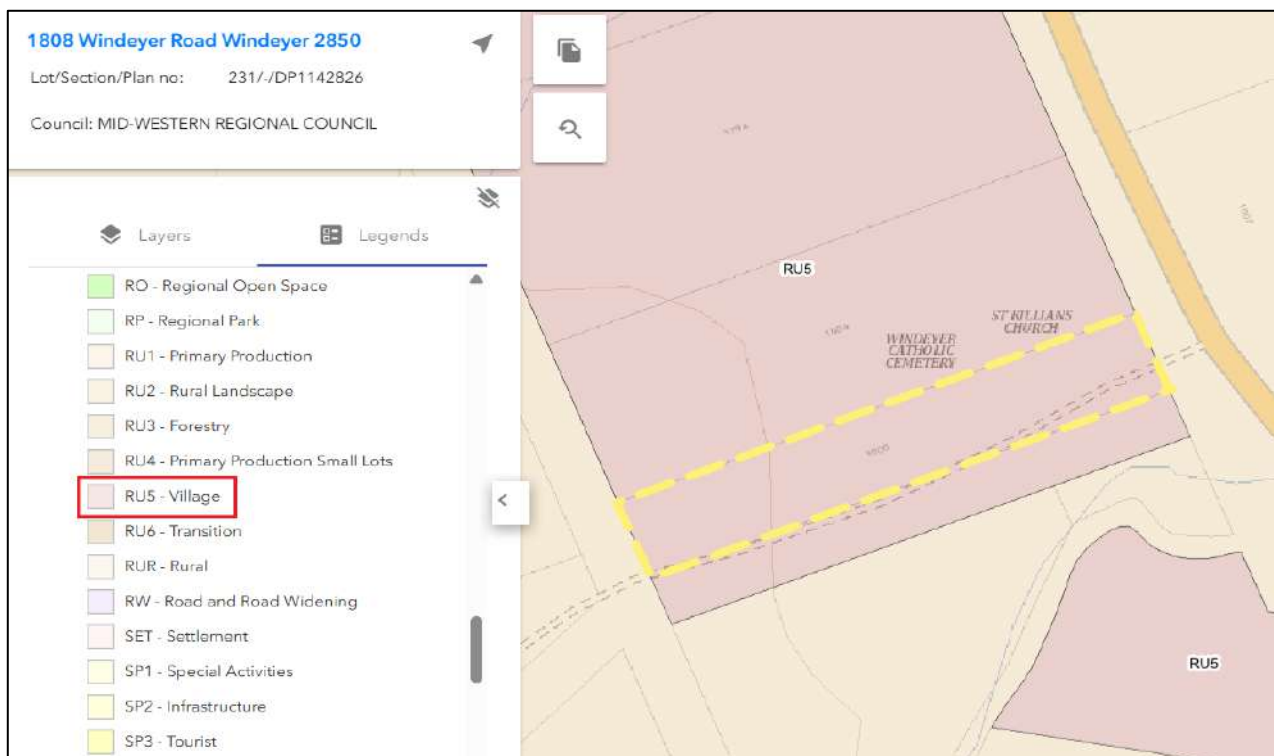


Figure 4 – Zoning Map

Source: (NSW Planning & Environment, 2023)

The site is zoned RU5 Village pursuant to the provisions under the *Mid-Western Regional Local Environmental Plan 2013* as shown in Figure 4 above. The wider locality is generally zoned RU1 Primary Production lands in the wider locality.

2.3. Environmental Considerations

2.3.1. Environmentally Significant Features

The subject site is not identified as containing any environmentally sensitive features under the LEP mapping.

2.3.2. Threatened Species, Populations and Ecological Communities

A Flora and Fauna Assessment has not been carried out for the proposal as there are minimal works and no significant habitat (both flora and fauna) required to be removed. As such, it is considered that the proposal would not have a significant impact on any listed species, populations or ecological communities listed under the *NSW Threatened Species Conservation Act 1995* or *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*.

2.3.3. Indigenous Heritage

An Aboriginal Heritage Information Management System (AHIMS) Search was undertaken for the site. No items of indigenous heritage have been listed as being recorded or identified on the site.

3. BUSH FIRE ASSESSMENT

3.1. Methodology

The methodology utilised for the bush fire assessment is outlined in A1.1 of the PBP. The following provides the required information in accordance with the methodology.

3.2. Bush Fire Fuels

Pursuant to Appendix 1 of PBP, all vegetation within 140m of the site (assessment area) has been classified in accordance with *Ocean Shores to Desert Dunes* (Keith, 2004) and Figure 2.3 of AS3959. The vegetation within the assessment area has been mapped and is shown in Figure 5 below. Photographs of the vegetation from the site inspection carried out on 05 April 2023 are provided in the following plates for each assessment plot.



Figure 5 – Vegetation Classification

Plot 1

Existing Classification:	Managed Land
Post Development Classification:	Managed Land
Description:	Area within the site's boundaries including the church and the cemetery, and surrounding road network. Site will continue to be managed.



Plate 1 – Plot 1



Plate 2 – Plot 1

Plot 2

Existing Classification:	Managed Land
Post Development Classification:	Managed Land
Description:	Property to the north which consists of a dwelling and mowed grasses.



Plate 3 – Plot 2



Plate 4 – Plot 2

Plot 3	
Existing Classification:	Woodland
Post Development Classification:	Woodland
Description:	A group of trees that bound both the site and Windgraves Road.





Plate 5 – Plot 3



Plate 6 – Plot 3

Plot 4	
Existing Classification:	Managed land/grassland
Post Development Classification:	Managed land/grassland
Description:	Neighbouring property on the southern side of Windgraves Road.



Plate 7 – Plot 4		Plate 8 – Plot 4	
Plot 5			
Existing Classification:		Grassland	
Post Development Classification:		Grassland	
Description:		Property on the eastern side of Windeyer Road. A paddock that seems to be used for horses or the like. In this case it is somewhat managed.	
			
Plate 9 – Plot 5		Plate 10 – Plot 5	

3.3. Topography

The topography for the site and within 100m of the site is shown in Figure 6. Pursuant to Appendix 1.4 of PBP, contour data has been sourced from the NSW Spatial Information Exchange Mapping system. The contour data was verified by ground truthing during the site inspection.



Figure 6 – Topography

Source: (NSW Government Spatial Services, 2023)

3.4. Fire Weather Area

The subject site is located within the Mid-Western LGA. Pursuant to Table A1.6 of the PBP, the relevant Forest Fire Danger Index (FFDI) for the site is 80.

3.5. Asset Protection Zone Determination

The relevant Asset Protection Zones (APZ) are to be determined based on Table A1.12.3 of PBP. Accordingly, an assessment is provided in Table 1 below for the proposed change of use to support a dwelling.

Table 1 – Asset Protection Zone Determination

Plot	Vegetation Class	Effective Slope	APZ
1	Managed Land	Upslope	N/A*
2	Managed Land	Upslope	N/A*
3	Woodland	Upslope	11m
4	Managed Land/Grassland	Undulating/Upslope	10m

5	Managed Land/Grassland	Downslope 0-5°	11m
<i>*Refer to Page 112 of PBP 2019 for requirement for Managed Land.</i>			

The worst case APZ required is 11m. Plot 1 and Plot 2 are considered managed land, thus not applicable.

3.6. Bushfire Attack Level Assessment

The Bushfire Attack Level (BAL) assessment has been determined as per Table A1.12.6 of PBP. The inputs used in the calculation of the BAL are outlined in Table 2 below.

Table 2 – BAL Inputs

Requirement	Input Used
Relevant FDI (table 2.1 of AS3959)	80
Classified vegetation	As per Section 3.2 of this report, Keith (2004) and Figure 2.3 of AS3959.
Separation Distance	As provided below.
Effective Slope	As per Table 1.

Using the inputs outlined above, the BAL has been calculated for each of the Plots identified in Section 3.2.

Table 3 – Bushfire Attack Levels

Plot	Vegetation Class	Separation Distance to bushfire threat	Effective Slope	BAL
1	Managed Land	N/A	Upslope	N/A
2	Managed Land	N/A	Upslope	N/A
3	Woodland	18m	Upslope	BAL-19
4	Managed Land/Grassland	30m	Undulating/Upslope	BAL-12.5

5	Managed Land/Grassland	50m	Downslope 0-5°	BAL-12.5
Worst Case BAL				BAL-19

As shown above, the worst-case BAL is BAL-19. The relevant construction standards for BAL-19 are outlined in Sections 3 and 6 of AS3959.

4. BUSH FIRE PROTECTION MEASURES

4.1. Introduction

The proposed development, being an infill development, is required to comply with the Bush Fire Protection Measures (BFPMs) outlined in Section 7.4 of PBP. There are eight key BFPMs outlined by PBP for infill development:

- Asset Protection Zones;
- Access;
- Water Supplies;
- Electricity services;
- Gas services;
- Construction standards;
- Landscaping; and
- Emergency management.

The relevant BFPMs are addressed throughout Section 4 of this report.

4.2. Aims and Objectives of PBP

The aim of PBP is:

to provide for the protection of human life and minimise impacts on property from the threat of bush fire, while having due regard to development potential, site characteristics and protection of the environment.

The objectives of PBP are to:

afford buildings and their occupants protection from exposure to a bush fire;

- *provide for a defensible space to be located around buildings;*
- *provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;*
- *ensure that appropriate operational access and egress for emergency service personnel and occupants is available;*
- *provide for ongoing management and maintenance of BPMs;*
- *and ensure that utility services are adequate to meet the needs of firefighters.*

The proposal has considered radiant heat levels of less than 29kW/m² to avoid flame contact, that would provide for appropriate separation to the hazards. The development in conjunction with the bush fire protection measures will provide for safe operational access and egress for emergency services personnel and residents, as well as sufficient water supply. Therefore, the proposed development is considered to be consistent with the objectives of PBP.

4.3. Objectives for Infill Development

Section 7.3 of PBP contains the specific objectives for infill development:

- *Provide a defensible space to enable unimpeded access for firefighting around the building;*
- *Provide better bush fire outcomes on a redevelopment site than currently exists, commensurate with the scale of works proposed;*
- *Design and construct buildings commensurate with the bush fire risk;*
- *Provide access, services and landscaping to aid firefighting operations;*
- *Not impose an increased bush fire management and maintenance responsibility on adjoining land owners; and*
- *Increase the level of bush fire protection to existing dwellings based on the scale of the proposed work and level of bush fire risk.*

In complying with the BFPs, the proposed development complies with objectives for infill development, as outlined above.

4.4. Asset Protection Zones

The following table outlines the Performance Criteria and associated Acceptable Solutions for the APZ BFP in accordance with Table 7.4a of PBP.

Table 4 Asset Protection Zones

Performance Criteria	Acceptable Solution/Comment	Compliance
APZs are provided commensurate with the construction of the building; and A defensible space is provided.	An Asset Protection Zone of 11m shall be established around the building, and shall be established in accordance with Appendix 1 of PBP.	✓
APZs are managed and maintained to prevent the spread of a fire to the building.	The APZ shall be managed in accordance with Appendix 4 of PBP.	✓
The APZ is provided in perpetuity. APZ	The APZ shall be provided in perpetuity of the proposed dwelling and is completely within the boundaries of the site.	✓

maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.

4.5. Access Standards

The following table outlines the Performance Criteria and associated Acceptable Solutions for Access in accordance with Table 7.4a of PBP.

Table 5 Access

Performance Criteria	Acceptable Solution/Comment	Compliance
Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	A new driveway shall be established via an existing gate consisting of a two-wheel drive, all weather access road, suitable for providing fire vehicles with access to and from the site.	✓
The capacity of access roads is adequate for firefighting vehicles.	The capacity of the proposed driveway shall be sufficient to carry fully loaded firefighting vehicles up to 23 tonnes. No bridges or causeways are required.	✓
There is appropriate access to water supply.	It is recommended that the proposed rainwater tanks are a minimum of 10,000L (or at least 10,000L of storage) in a metal or concrete tank be installed on the site to be entirely dedicated for bush fire protection.	✓
Firefighting vehicles can access the dwelling and exit the property safely.	It is recommended that the following be implemented for the proposed access driveway: <ul style="list-style-type: none"> The access has an established minimum carriage width of 4m, which includes a 4m vertical clearance to any overhanging obstructions (i.e. tree branches); 	✓

- A suitable turning area is provided in accordance with Appendix 3 of PBP 2019; and
- The APZ is to be managed to ensure vehicles can access the site without any obstructions.

4.6. Water Supplies

The following table outlines the Performance Criteria and associated Acceptable Solutions for Water supply in accordance with Table 7.4a of PBP.

Table 6 Water Supply

Performance Criteria	Acceptable Solution/Comment	Compliance
An adequate water supply is provided for firefighting purposes.	It is recommended that at least 10,000L of rainwater storage is provided on the site to be entirely dedicated for bush fire protection.	✓
water supplies are located at regular intervals; and the water supply is accessible and reliable for firefighting operations.	The water supply is easily accessible for fire fighting vehicles.	✓
Flows and pressure are appropriate.	Not applicable.	N/A
The integrity of the water supply is maintained.	All above-ground water service pipes including taps etc shall be constructed of metal material.	✓
A static water supply is provided for firefighting purposes in areas where reticulated	The development complies with this part, as follows: <ul style="list-style-type: none"> • Table 5.3d of PBP requires rural/residential lots to have 10,000L of rainwater storage. The site requires the construction of a steel or concrete rainwater tank (in 	✓

water supply is not available.

- order to comply with PBP), which shall be dedicated for firefighting purposes only;
- The firefighting connection is located away from the structure and shall consist of a 65mm Storz outlet with ball valve fitted;
 - The ball valve and pipes are to be metal and shall provide adequate water flow;
 - A hardened access driveway is provided to the tank;
 - The tank is to be constructed of metal;
 - Unobstructed access to the tank shall be provided; and
 - All exposed water pipes and fittings external to the building are to be metal material.

4.7. Electricity and Gas Services

The following table outlines the Performance Criteria and associated Acceptable Solutions for the Electricity and Gas Services in accordance with Table 7.4a of PBP.

Table 7 Electricity and Gas Services

Performance Criteria	Acceptable Solution/Comment	Compliance
Location of electricity services limited the possibility of ignition of surrounding bush land or the fabric of buildings.	Vegetation around existing transmission lines are to be maintained in accordance with the specifications in <i>ISSC3 Guideline for Managing Vegetation Near Powerlines</i> .	✓
Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.	Should gas be incorporated, the following recommendations are provided: <ul style="list-style-type: none"> • Installed and maintained in accordance with AS/NZS 1596:2004 with metal piping used; • All fixed cylinders are to be kept clear of flammable materials to a distance of 10m; • All connections to be metal construction. 	✓

4.8. Construction Standards

The following table outlines the Performance Criteria and associated Acceptable Solutions for Construction Standards in accordance with Table 7.4a of PBP.

Table 8 Construction Standards

Performance Criteria	Acceptable Solution/Comment	Compliance
The proposed building can withstand bush fire attack in the form of embers, radiant heat and flame contact.	As detailed in Section 3.6, the worst case and therefore the applicable BAL for the proposed development is BAL-19. Compliance is to be achieved with the NCC and AS3959.	✓
Proposed fences and gates are designed to minimise the spread of bush fire.	Any proposed fencing or gates shall be constructed of metal material.	✓
Proposed Class 10a buildings are designed to minimise the spread of bush fire.	Any proposed Class 10a buildings within 6m of the dwelling shall be constructed in accordance with Section 8.3.2 of PBP.	✓

4.9. Landscaping

The following table outlines the Performance Criteria and associated Acceptable Solutions for Landscaping in accordance with Table 7.4a of PBP.

Table 9 Landscaping

Performance Criteria	Acceptable Solution/Comment	Compliance
----------------------	-----------------------------	------------

<p>Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.</p>	<p>The applied APZs shall be established and maintained in accordance with Appendix 4 and the applicable <i>Asset Protection Zone Standards</i>.</p> <p>There shall be no branches overhanging the roof and new plantings shall be established to ensure that there are no continuous tree canopies.</p>	✓
--	--	---

4.10. Emergency Management

PBP does not provide any specific Emergency Management Arrangement requirements for residential developments. Nevertheless, it is strongly recommended that a Bush Fire Survival Plan be prepared by the residents of the property in accordance with the NSW RFS' guidelines located on the following webpage <http://www.rfs.nsw.gov.au/resources/bush-fire-survival-plan>.

5. RECOMMENDATIONS

The assessment of the proposed development carried out in this report has assumed the development will be carried out in accordance with a number of bush fire protection measures (BFPMs). The following provides a summary of the recommended BFPMs that must be incorporated into the development to ensure it best protects the development from the effects of bushfire in accordance with the requirements of PBP and other best practice guidelines.

- Asset Protection Zone/Defendable Space:
 - The following Areas are to be managed as APZs in accordance with the guidelines provided in Appendix C:
 - North – 11m
 - East – 11m
 - South – 11m;
 - West – 11m.
- Construction Standards:
 - The structure shall be upgraded in accordance with BAL-19 standards under AS395-2009;
 - Any future ancillary Class 10 buildings are to be sited more than 6m from the proposed dwelling. Any Class 10a building constructed within 6m of the proposed dwelling shall be constructed in accordance with the relevant BAL.
- Access
 - New access roads (driveways) are to be two-wheel drive, all-weather roads;
 - A minimum carriage width of 4m is required with a vertical clearance of 4m to any overhanging obstructions (i.e. branches);
 - Access roads (driveways) shall not prohibit access by emergency vehicles;
 - Driveways are to have the capacity to carry fully loaded firefighting vehicles up to 23 tonnes;
 - The Asset Protection Zone is to be managed/unobstructed to ensure trucks to be able to manoeuvre to and from the site easily. Access to the water tanks shall be kept clear.
 - The existing access road to the existing dwelling shall continue to be maintained in accordance with the requirements under PBP 2019
- Services
 - Water:
 - The dwelling shall be afforded with at least 10,000L of rainwater storage to be retained at all times for firefighting purposes. The tank in which this water is to be stored is required to be constructed of steel (or concrete). This tank shall be dedicated for firefighting purposes only;
 - The tank is to be provided with connections for firefighting purposes including a 65mm Storz outlet with gate/ball valve;
 - Valves and pipes are to be metal and adequate for water flow;
 - All above ground pipes and taps are to be metal; and
 - Pumps are to be shielded.
 - Electricity:
 - Vegetation around existing/proposed transmission lines are to be maintained in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Powerlines.
 - Gas:

- Any proposed gas bottles shall be installed and maintained in accordance with AS/NZS 1596:2004 with metal piping used;
 - All fixed cylinders are to be kept clear of flammable materials to a distance of 10m (or appropriately shielded);
 - All connections are to be of metal construction.
- Emergency Evacuation Plans
 - Preparation of a Bush Fire Survival Plan for the proposed dwelling, in accordance with RFS requirements
 - If the existing dwelling does not have an existing Bush Fire Survival Plan, one is to be prepared in accordance with RFS Requirements

6. CONCLUSION

The construction of the proposed dwelling will ensure that the habitable development is located in an area that has a low to moderate bushfire hazard level. With the implementation of the recommendations, as outlined in Section 5 and identified throughout this report, the proposed development is considered to be appropriately protected from bushfire and complies with the requirements of PBP. The proposal development is not expected to increase the bushfire risk on the site.

7. REFERENCES

- NearMaps. (2023, April 14). *NearMaps*. Retrieved from <http://maps.au.nearmap.com/>
- NSW Government. (2017, September 1). *Biodiversity Value Map*. Retrieved from <https://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BVMap>
- NSW Government Spatial Services. (2017, January 18). *Six Maps*. Retrieved from <http://maps.six.nsw.gov.au/>
- NSW Government Spatial Services. (2023, April 14). *Six Maps*. Retrieved from <http://maps.six.nsw.gov.au/>
- NSW Government Spatial Services. (2023, April 14). *Six Maps*. Retrieved from <http://maps.six.nsw.gov.au/>
- NSW Planning & Environment. (2023, April 14). *Planning Viewer*. Retrieved from <https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/lot>
- NSW Planning & Environment. (2023, April 14). *Planning Viewer*. Retrieved from <https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/lot>
- NSW Rural Fire Service. (2006). *Planning for Bush Fire Protection: A Guide for Council's, Planners, Fire Authorities and Developers*. Sydney: NSW RFS.

APPENDIX A
Development Plans



LOCALITY PLAN.



1808 Windeyer Road NSW 2850

Lot 231, DP 1142826

DRAWING SCHEDULE.

01	COVER SHEET	REV B	DATED 02.05.2025
02	SAFE DESIGN OF STRUCTURES	REV B	DATED 02.05.2025
03	SITE PLAN	REV B	DATED 02.05.2025
04	EXIST	REV B	DATED 02.05.2025
05	FLOOR	REV B	DATED 02.05.2025
06	ELEVATION	REV B	DATED 02.05.2025

GENERAL NOTES.

In addition to the National Construction Code series, Building Code of Australia Vol. 2, 2022, the Plumbing Code of Australia, 2022 & the building regulations applicable to the state of New South Wales, the following applicable Australian Standards & codes of practice are to be adhered to through the documentation & construction works;

- AS1668 Mechanical ventilation & air conditioning in Buildings
- AS3000 Electrical installations; buildings, structures & premises (known as the saa wiring rules)
- AS2890.5 On-street parking; mandatory requirements
- AS1690 Interior lighting

These drawings shall be read in conjunction with all architectural & other consultants drawings & specifications & with such other written instructions as may be issued during the course of the contract. All discrepancies shall be referred to 'Barnson Pty Ltd' for a decision before proceeding with the work.

All dimensions are in millimetres unless stated otherwise & levels are expressed in metres. Figured dimensions are to be taken in preference to scaled dimensions unless otherwise stated. All dimensions are nominal, and those relevant to setting out & off-site work shall be verified by the contractor before construction & fabrication.

PROPOSED CHANGE OF USE

1808 WINDEYER ROAD, WINDEYER, NSW 2850

SAFE DESIGN OF STRUCTURES NOTES.

FALLS, SLIPS & TRIPS

The following safety guidelines are set out henceforth in accordance with AS/NZS 4576:2011 & the safe design of structures code of practice 2020.

Health & safety information & may include some of your legal obligations you must refer to.

Components for this building should be prefabricated off-site & construction of this building will require workers to be vigilant to prevent result from such a fall. Temporary work platforms are to be used in any situation wherever a person is required to work in a situation where they are exposed to falling objects. Scaffolding, outriggers & scaffolding shall be constructed in accordance with Australian standards.

A fall arrest system is to be installed, the anchorage & fall arrest system shall be inspected on a regular basis.

Slip resistant surfaces, as specified by designer, these have been selected to minimise the risk of slipping. Any changes to the specified finish should be made to ensure equivalent or better slip resistance should be chosen.

When involved in the selection of surface finishes, the owner is responsible for the selection of this building. Surfaces should be selected in accordance with the relevant standards.

The owner should monitor the pedestrian access ways & in particular, ensure that they have not moved or cracked so that they become uneven. Any such damage should cause a slip or trip hazard should be cleaned or removed.

Materials used to maintain a tidy work site during construction, maintenance or repair work should be stored in designated areas.

When in care has been taken to ensure the use of materials that have a high slip resistance of existing materials used throughout the building.

FALLING OBJECTS

FIRE & EMERGENCIES

When construction or demolition of this building, parts of the structure may be required prior to or after supporting parts are in place. Contractors should be aware of the risk of collapse which may injure persons in the area is a risk.

When components during construction, maintenance or demolition are used, that loads are properly secured & the structure is not overloaded.

It is the responsibility of the owner to ensure all personnel & visiting clientele are aware of the risks & maintained throughout the lifecycle of the building.

TRAFFIC MANAGEMENT

Narrow road or steeply sloping road
When loading of vehicles on this roadway may cause a traffic hazard. Management personnel should be aware of the risk of a fire hazard. Management personnel should be aware of the risk of a fire hazard.

Loading/unloading is restricted
When loading & unloading of materials on the road, management personnel should be used to supervise loading & unloading.

SERVICES

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

Power
When construction, maintenance or demolition commencing, the power should be located in or around this site, all underground power should be located in or around this site.

STRUCTURAL SAFETY

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

WORK

WORKCOVER

WORK

WORKCOVER

WORK

WORK

WORK

WORKCOVER

WORK

WORKCOVER

WORK

EARTHWORKS

It is the responsibility of the contractor to ensure that all safety risks are minimised.

To enable the placement of materials, the contractor should ensure that all safety risks are minimised.

MANUAL TASKS

Components within this design should be not practical, suppliers or contractors should be aware of the risk of injury.

All material packaging, but not stored on site in a way which may cause injury. Construction, maintenance or repair work should not be used where faulty or damaged. Regularly checked & personnel should be aware of the risk of injury.

CONFINED SPACES

excavation
Construction of this building should not require workers to enter confined spaces. Warning signs & barriers should be used to prevent access.

enclosed spaces
For buildings with enclosed spaces, persons entering for construction, maintenance or repair work should be aware of the risk of injury. These should be marked with warning signs & barriers.

small spaces
Some small spaces within the building should be marked with warning signs & barriers to unauthorised access. They should be scheduled for regular inspection.

HAZARDOUS SUBSTANCES

Although during specific construction, maintenance or repair work, precautions should be taken to ensure that all safety risks are minimised.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

When construction or other activity creates a variety of risks including the risk of fire, these are identified on the plans but the exact location of the service is an appropriate service (such as dial before you dig), the service should be used.

CONSTRUCTION NOTES.

GENERAL

Termite risk management is to be installed to ensure Class 1 to have 50 year design life by compliance with AS3660.1 Termite Management & the ABCB Housing Provisions, Part 3.4. Method of termite risk management is to be permanently fixed to the building in a prominent location, such as in a meter box or the like in accordance with ABCB Housing Provisions, Part 3.4.3.

PLUMBING

Roof water to be collected by eaves gutter & discharged to downpipes thru 100mm dia. subsoil charged PVC pipes to tanks underground positioned by client, overflow via 100mm dia. subsoil PVC pipes at min. 1% fall to street.

Water temperature to all outlets (except laundry & kitchen) not to exceed 50°C.

The top of the buildings overflow relief gully shall be positioned:
- a min. 150mm below the lowest sanitary fixture in the bldg. &
- a min. Of 75mm above the surrounding finished surface level.

All plumbing works are to be in accordance with the NCC, Vol. 3, Plumbing Code of Australia, the New South Wales Code of Practice for Plumbing & Drainage 2000 & AS/NZS3500.

Roof water to be collected by eaves gutter & discharged to downpipes thru subsoil PVC pipes to tanks positioned by client, overflow to be determined on site.

WATERPROOFING

All wet areas waterproofing is to comply with AS3740:2021. Waterproofing of wet areas within residential buildings.

All waterproofing materials & system components are to be installed according to manufacturer's installation instructions & material compatibility is to be checked by the builder prior to use. Waterproofing system is to allow for creep, expansion & contraction of substrate in accordance with AS3470:2021.

Weatherproofing of walls with flashings & damp proof course during construction should provide protection to floor framing members from the weather or ground moisture rising through the substructure in accordance with AS1684.3:2021.

ELECTRICAL

All electrical wiring & electrical installations are to comply with AS/NZS3000:2018 Wiring rules.

AS/NZS3000:2018 requires no electrical socket outlets, switches or electrical accessories to be installed within 300mm from a wet place, therefore, it is recommended that all electrical services be located 200mm minimum above FFL.

Exhaust fans & rangehoods are to be vented directly outside & not into the roof cavity.

Air conditioning units are to meet the relevant MEPS of AS/NZS3823.1, AS/NZS3823.2 or AS/NZS3823.3:2012 for both single & three phase.

When the manufacturer's installation instructions exclude clearances for recessed lights, refer to default dimensions from AS/NZS3000:2018. Provide safety switches for all lighting & electrical equipment.

All external lights are to be shielded.

Where these are used, they may also be used.

Where these are used, they may also be used.

Where these are used, they may also be used.

Where these are used, they may also be used.

Where these are used, they may also be used.

Where these are used, they may also be used.

Where these are used, they may also be used.

Where these are used, they may also be used.

Where these are used, they may also be used.

Where these are used, they may also be used.

Where these are used, they may also be used.

Where these are used, they may also be used.

Where these are used, they may also be used.

Where these are used, they may also be used.

Where these are used, they may also be used.

BARNSON PTY LTD

address, Suite 8, 11 White Street
Tamworth NSW 2340
phone, 1300 BARNSON (1300 227 676)
email, generalenquiry@barnson.com.au
web, barnson.com.au

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH GENERAL BUILDING DRAWINGS, SPECIFICATIONS & OTHER CONSULTANT'S DRAWINGS APPLICABLE TO THIS PROJECT. ALL DIMENSIONS IN MILLIMETRES. DO NOT SCALE. DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK. REPORT DISCREPANCIES TO BARNSON PTY LTD. NO PART OF THIS DRAWING MAY BE REPRODUCED IN ANY WAY WITHOUT THE WRITTEN PERMISSION OF BARNSON PTY LTD.

Rev. Date Amendment
A 10.04.2025 PRELIMINARY ISSUE FOR REVIEW
B 02.05.2025 ISSUE FOR DA

Project, PROPOSED CHANGE OF USE
Site Address, 1808 WINDEYER ROAD, WINDEYER, NSW 2850

Client, JORGE DIAZ

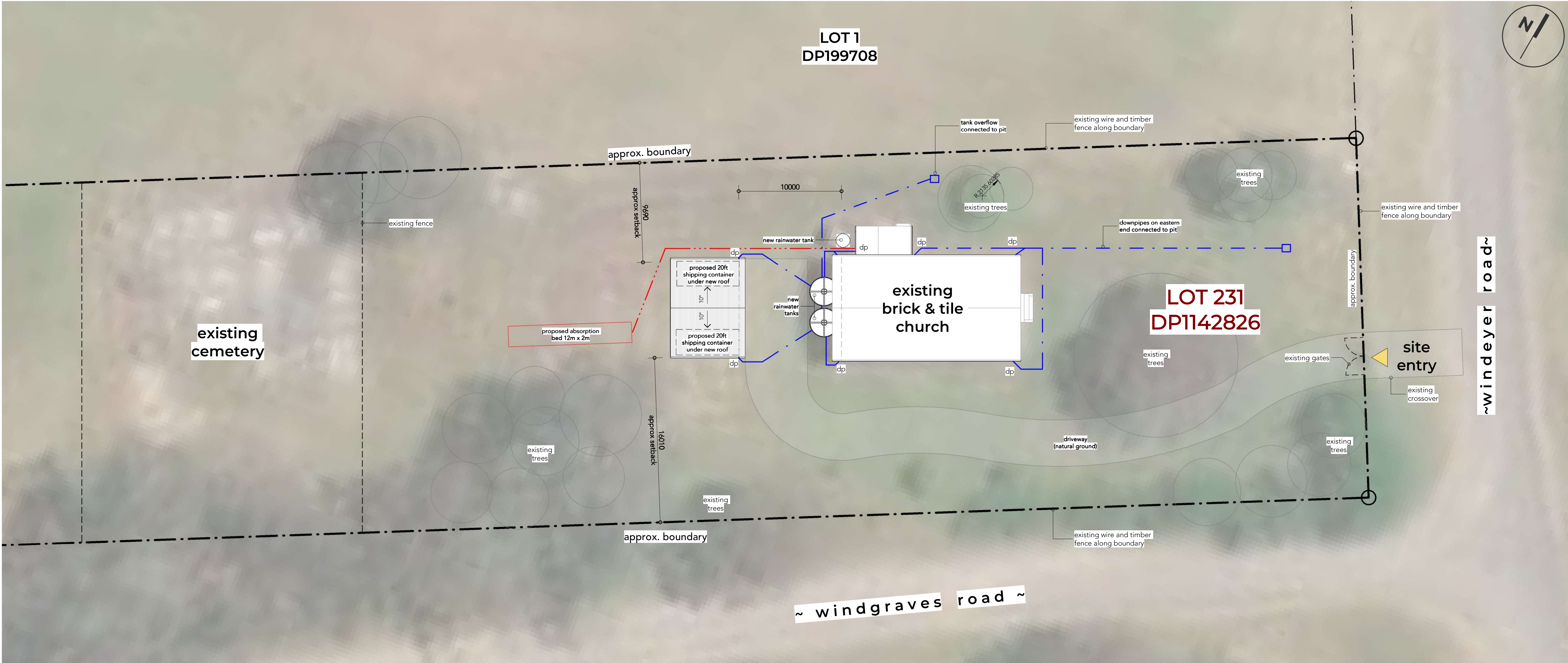
Drawing Title, SAFE DESIGN OF STRUCTURES

Sheet, 02 of 06
Project No, 46937

Drawing No,

Drawn, TP
Design, LO
Checked, CR
Revision, B

ISSUE FOR DA



01 SITE PLAN

Scale 1:200 @ A1



BARNSON PTY LTD

address, Unit 1, 36 Darling Street
Dubbo NSW 2830
phone, 1300 BARNSON (1300 227 676)
email, generalenquiry@barnson.com.au
web, barnson.com.au

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH GENERAL BUILDING DRAWINGS, SPECIFICATIONS, AND OTHER CONSULTANT'S DRAWINGS APPLICABLE TO THIS PROJECT. ALL DIMENSIONS IN MILLIMETRES. DO NOT SCALE. DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK. REPORT DISCREPANCIES TO BARNSON PTY LTD. NO PART OF THIS DRAWING MAY BE REPRODUCED IN ANY WAY WITHOUT THE WRITTEN PERMISSION OF BARNSON PTY LTD.

Rev.	Date	Amendment
A	10.04.2025	PRELIMINARY ISSUE FOR REVIEW
B	02.05.2025	ISSUE FOR DA

Project:
PROPOSED CHANGE OF USE
Site Address:
1808 WINDEYER ROAD, WINDEYER, NSW 2850
Client:
JORGE DIAZ

Drawing Title:
SITE PLAN
Scale: As indicated @ A1
Sheet: 03 of 06
Project No: **46937**

Drawn.	TP
Design.	LO
Checked.	CR
Revision.	B

Drawing No:

SITE NOTES.

GENERAL

This plan is prepared for the purpose of the title boundary. Services shown hereon are those shown on the authorities where available hereon.

Contractors must verify the location of all services prior to any demolition & detailed locations of:
- notify a.G.L.
- obtain telstra's "as shown" location
- verify co-axial/optical fibre

Subsequent registered survey definition shown on this plan. All work to be undertaken shall be in accordance with the specifications & the directions of the superintendent of works. Where new works are shown, the contractor shall ensure that the profile free from abrupt changes is obtained.

The contractor shall ensure that the profile free from abrupt changes is obtained.

DRAINAGE

Stormwater shall be provided by the contractor in accordance with AS/NZS 1546:2012.

Site drainage is to be provided by the contractor in accordance with AS/NZS 1546:2012.

The contractor shall provide necessary excavate services to ensure that at all time exposed surfaces are free draining areas.

Designing new constructions on the land & should not be based on the survey & have been determined by plan dimensions. If not able to be so located services have been plotted from the authorities where available hereon. If such records either do not exist or are inadequate for the purpose of the title boundary, the contractor shall be responsible for the commencement of work.

Authority should be contacted for possible location of the services. The contractor shall be responsible for the location of the telstra plant.

definition shown on this plan. Any differences so caused shall be the responsibility of the contractor. The contractor shall accept no responsibility for such differences. The contractor shall be responsible for the location of the services, the specifications & the directions of the superintendent of works. Where new works are shown, the contractor shall ensure that the profile free from abrupt changes is obtained.

The contractor shall ensure that the profile free from abrupt changes is obtained.

buildings. Where these are lower than adjacent ground levels, the contractor shall ensure that any flow, which would otherwise drain into the buildings, is intercepted and discharged to the street or to the drainage.

drainage.

ensure that at all time exposed surfaces are free draining areas.

ISSUE FOR DA

46937-
A03

Rev.	Date	Amendment
A	10.04.2025	PRELIMINARY ISSUE FOR REVIEW
B	02.05.2025	ISSUE FOR DA



DEMOLITION LEGEND.

- denotes existing elements to be demolished, make good to existing surfaces

|||||

denotes existing walls to be demolished, make good to existing surfaces

denotes existing doors to be demolished, make good to existing surfaces

==

denotes existing windows to be demolished, make good to existing surfaces

DEMOLITION NOTES.

The precautions & procedures to be taken before & during the demolitions works shall be in accordance with the building regulations applicable to the state of New South Wales & the following Australian standards:

 - 'AS 2601-2001 - demolition of structures' & the following additional requirements
 - AS 2436 - 1981 guide to noise control
 - OHS - code of practice for demolition, 1991 pp. 14

Demolition shall be undertaken in a careful & proper manner to avoid damage to adjacent buildings & to the public & occupants.

Precautions shall be taken to avoid danger from collapse of a building when demolition is in progress.

Structures shall be left free standing & unattended without the use of shoring to avoid collapse due to wind or vibration.

Demolition will be adequate to prevent injury to persons & avoid damage to adjacent property.

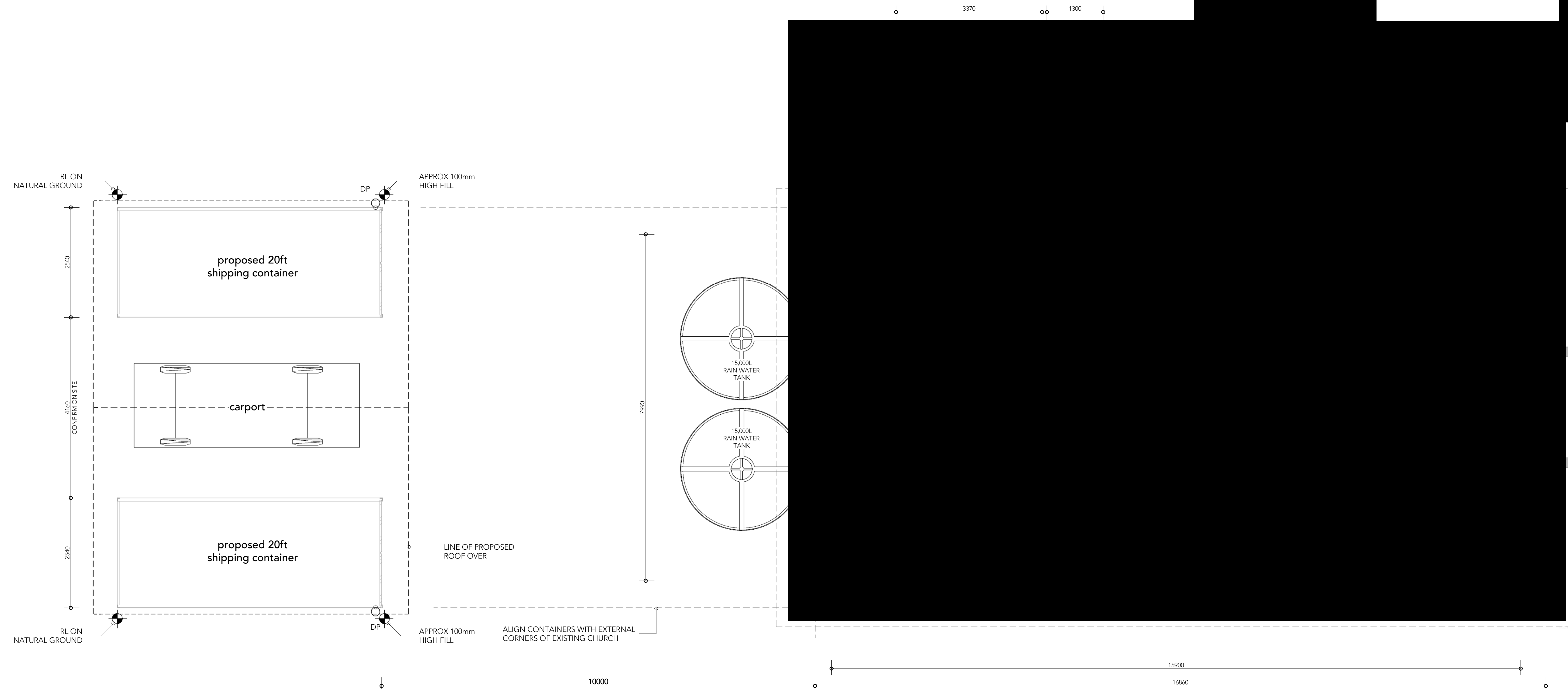
Debris will be left on site as to cause a fire hazard.

ISSUE FOR DA

BASIX CERTIFICATE COMMITMENTS.

Certificate number: A1793760

HOT WATER
The applicant must install the following hot water system in the development: electric heat pump system that is eligible to create Renewable Energy Certificates under the (Commonwealth) Renewable Energy (Electricity) Regulations 2001 (incorporating Amendment Regulations 2005 (No. 2)
LIGHTING
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.
FIXTURES
<div><div></div><div>The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.</div></div> <div><div></div><div>The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.</div></div> <div><div></div><div>The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating.</div></div>



03 FLOOR PLAN - PROPOSED

Scale 1 : 50 @ A1



TABLE

4 m²
3 m²
4 m²
58 m²
89 m²

BARNSON PTY LTD

address, Unit 1, 36 Darling Street
Dubbo NSW 2830
phone, 1300 BARNSON (1300 227 676)
email, generalenquiry@barnson.com.au
web, barnson.com.au

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH GENERAL BUILDING DRAWINGS, SPECIFICATIONS AND OTHER CONSULTANT'S DRAWINGS APPLICABLE TO THIS PROJECT. ALL DIMENSIONS IN MILLIMETRES. DO NOT SCALE DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK. REPORT DISCREPANCIES TO BARNSON PTY LTD. NO PART OF THIS DRAWING MAY BE REPRODUCED IN ANY WAY WITHOUT THE WRITTEN PERMISSION OF BARNSON PTY LTD.

Rev.	Date	Amendment
A	10.04.2025	PRELIMINARY ISSUE FOR REVIEW
B	02.05.2025	ISSUE FOR DA

Project,
PROPOSED CHANGE OF USE

Site Address,
1808 WINDEYER ROAD, WINDEYER, NSW 2850

Client,
JORGE DIAZ

Drawing Title,	Scale,	As indicated @ A1	Drawn,	TP
FLOOR PLAN	Sheet,	05 of 06	Design,	LO
			Checked,	CR
	Project No,	46937	Revision,	B

Drawing No,

ISSUE FOR DA

46937-
A05



04 ELEVATION. NORTH ELEVATION
Scale 1:100 @ A1



05 ELEVATION. SOUTH ELEVATION
Scale 1:100 @ A1



06 ELEVATION. EAST ELEVATION
Scale 1:100 @ A1



07 ELEVATION. WEST ELEVATION
Scale 1:100 @ A1

08 ELEVATION. EAST ELEVATION - CONTAINERS
Scale 1:100 @ A1

APPENDIX B
Deposited Plan

DP 1142826

Registered:  25.8.2009

Title System: OLD SYSTEM

Purpose: LIMITED FOLIO CREATION

Ref. Map: TOWN WINDEYER

Last Plan: 3.1684

C.A. 140057

PLAN OF LAND COMPRISED IN

SER 162 PAGE 683 BEING THE RESIDUE

POR 23 EX LAND LOT 1 DP199708

Lengths are in metres. Reduction Ratio - NTS

Sheet 1 of 1 sheet

L.G.A.: MID-WESTERN REGIONAL

LOCALITY: WINDEYER

PARISH: WINDEYER (51)

COUNTY: WELLINGTON

THIS PLAN WAS PREPARED SOLELY TO
IDENTIFY THE LAND IN THE ABOVE DEED
AND THE BOUNDARIES HAVE NOT BEEN
INVESTIGATED BY THE REGISTRAR GENERAL

THIS PLAN IS NOT A CURRENT PLAN IN TERMS OF

S.7A CONVEYANCING ACT 1919.

PLAN COMPILED FROM 3.1684 & DP199708

LPI Ref.: TCB60/50

RD 20.115 WIDE

1

D P 199708

33.655
(DEDN)
328° 32'

239° 17' 10"

201.17

6703m² (DEDN)

231

238° 32'

201.17

148° 32'
32.77
(DEDN)

WINDGRAVES

ROAD

MUDGEES ST

APPENDIX C
APZ Requirements

protection

NSW RURAL FIRE SERVICE



STANDARDS FOR ASSET PROTECTION ZONES

INTRODUCTION	3
WHAT IS AN ASSET PROTECTION ZONE?	3
WHAT WILL THE APZ DO?	3
WHERE SHOULD I PUT AN APZ?	4
STEP 1. DETERMINE IF AN APZ IS REQUIRED	4
STEP 2. DETERMINE WHAT APPROVALS ARE REQUIRED FOR CONSTRUCTING YOUR APZ	5
STEP 3. DETERMINE ASSET PROTECTION ZONE WIDTH	5
STEP 4. DETERMINE WHAT HAZARD REDUCTION METHOD IS REQUIRED TO REDUCE BUSH FIRE FUEL IN YOUR APZ	6
STEP 5. TAKE MEASURES TO PREVENT SOIL EROSION	9
STEP 6. ONGOING MANAGEMENT AND LANDSCAPING	10
PLANTS FOR BUSH FIRE PRONE GARDENS.....	10
WIND BREAKS.....	11

INTRODUCTION

For thousands of years bush fires have been a natural part of the Australian landscape. They are inevitable and essential, as many Australian plants and animals have adapted to fire as part of their life cycle.

In recent years developments in bushland areas have increased the risk of bush fires harming people and their homes and property. But landowners can significantly reduce the impact of bush fires on their property by identifying and minimising bush fire hazards. There are a number of ways to reduce the level of hazard to your property, but one of the most important is the creation and maintenance of an Asset Protection Zone (APZ).

A well located and maintained APZ should be used in conjunction with other preparations such as good property maintenance, appropriate building materials and developing a family action plan.

WHAT IS AN ASSET PROTECTION ZONE?

An Asset Protection Zone (APZ) is a fuel reduced area surrounding a built asset or structure. This can include any residential building or major building such as farm and machinery sheds, or industrial, commercial or heritage buildings.

An APZ provides:

- a buffer zone between a bush fire hazard and an asset;
- an area of reduced bush fire fuel that allows suppression of fire;
- an area from which backburning may be conducted; and
- an area which allows emergency services access and provides a relatively safe area for firefighters and home owners to defend their property.

Potential bush fire fuels should be minimised within an APZ. This is so that the vegetation within the planned zone does not provide a path for the transfer of fire to the asset either from the ground level or through the tree canopy.

WHAT WILL THE APZ DO?

An APZ, if designed correctly and maintained regularly, will reduce the risk of:

- direct flame contact on the asset;
- damage to the built asset from intense radiant heat; and
- ember attack on the asset.

WHERE SHOULD I PUT AN APZ?

An APZ is located between an asset and a bush fire hazard.

The APZ should be located wholly within your land. You cannot undertake any clearing of vegetation on a neighbour's property, including National Park estate, Crown land or land under the management of your local council, unless you have written approval.

If you believe that the land adjacent to your property is a bush fire hazard and should be part of an APZ, you can have the matter investigated by contacting the NSW Rural Fire Service (RFS).

There are six steps to creating and maintaining an APZ. These are:

1. Determine if an APZ is required;
2. Determine what approvals are required for constructing your APZ;
3. Determine the APZ width required;
4. Determine what hazard reduction method is required to reduce bush fire fuel in your APZ;
5. Take measures to prevent soil erosion in your APZ; and
6. Landscape and regularly monitor in your APZ for fuel regrowth.

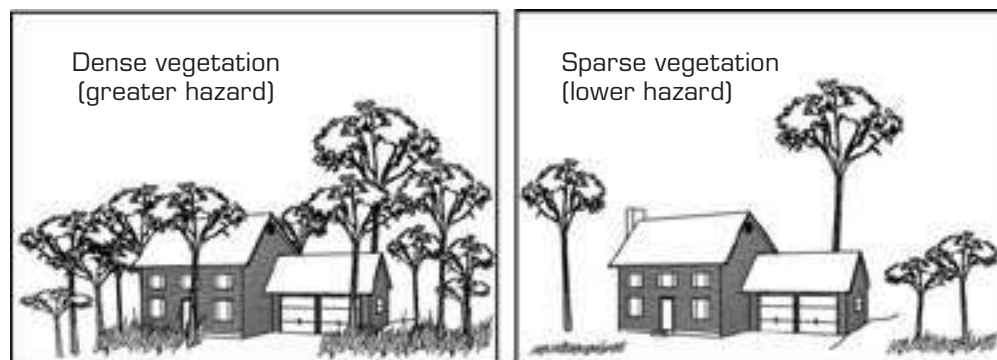
STEP 1. DETERMINE IF AN APZ IS REQUIRED

Recognising that a bush fire hazard exists is the first step in developing an APZ for your property.

If you have vegetation close to your asset and you live in a bush fire prone or high risk area, you should consider creating and maintaining an APZ.

Generally, the more flammable and dense the vegetation, the greater the hazard will be. However, the hazard potential is also influenced by factors such as slope.

- A large area of continuous vegetation on sloping land may increase the potential bush fire hazard.
- The amount of vegetation around a house will influence the intensity and severity of a bush fire.
- The higher the available fuel the more intense a fire will be.



Isolated areas of vegetation are generally not a bush fire hazard, as they are not large enough to produce fire of an intensity that will threaten dwellings.

This includes:

- bushland areas of less than one hectare that are isolated from large bushland areas; and
- narrow strips of vegetation along road and river corridors.

If you are not sure if there is a bush fire hazard in or around your property, contact your local NSW Rural Fire Service Fire Control Centre or your local council for advice.

STEP 2. DETERMINE WHAT APPROVALS ARE REQUIRED FOR CONSTRUCTING YOUR APZ

If you intend to undertake bush fire hazard reduction works to create or maintain an APZ you must gain the written consent of the landowner.

Subdivided land or construction of a new dwelling

If you are constructing an APZ for a new dwelling you will need to comply with the requirements in *Planning for Bushfire Protection*. Any approvals required will have to be obtained as part of the Development Application process.

Existing asset

If you wish to create or maintain an APZ for an existing structure you may need to obtain an environmental approval. The RFS offers a free environmental assessment and certificate issuing service for essential hazard reduction works. For more information see the RFS document *Application Instructions for a Bush Fire Hazard Reduction Certificate* or contact your local RFS Fire Control Centre to determine if you can use this approval process.

Bear in mind that all work undertaken must be consistent with any existing land management agreements (e.g. a conservation agreement, or property vegetation plan) entered into by the property owner.

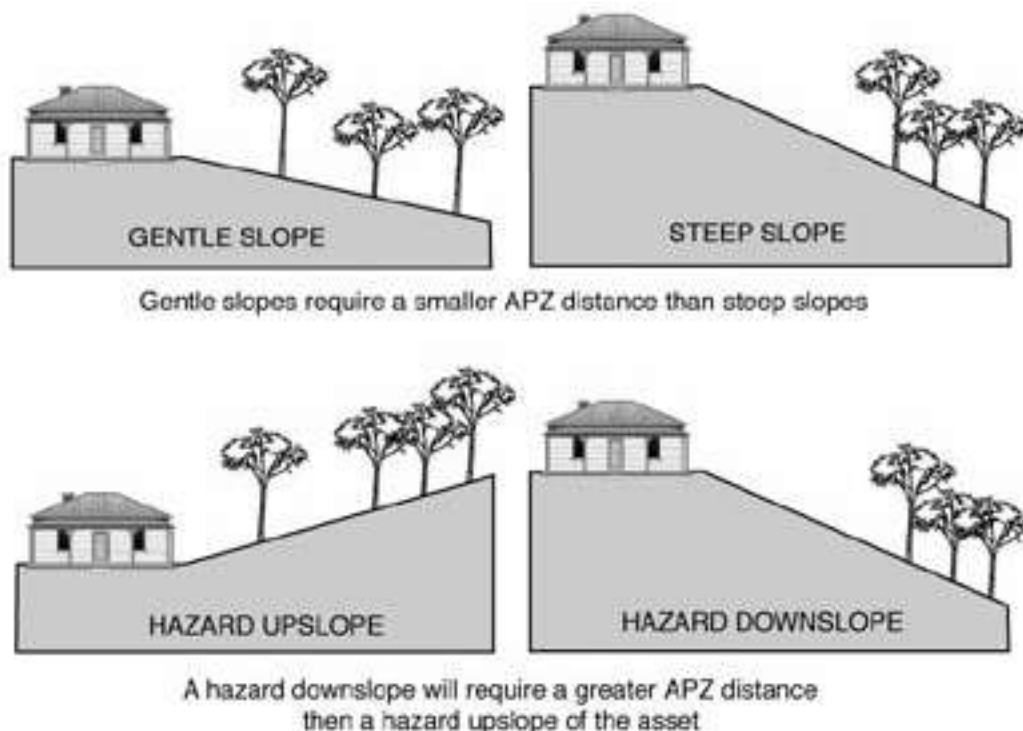
If your current development consent provides for an APZ, you do not need further approvals for works that are consistent with this consent.

If you intend to burn off to reduce fuel levels on your property you may also need to obtain a Fire Permit through the RFS or NSW Fire Brigades. See the RFS document *Before You Light That Fire* for an explanation of when a permit is required.

STEP 3. DETERMINE THE APZ WIDTH

The size of the APZ required around your asset depends on the nature of the asset, the slope of the area, the type and structure of nearby vegetation and whether the vegetation is managed.

Fires burn faster uphill than downhill, so the APZ will need to be larger if the hazard is downslope of the asset.



Different types of vegetation (for example, forests, rainforests, woodlands, grasslands) behave differently during a bush fire. For example, a forest with shrubby understorey is likely to result in a higher intensity fire than a woodland with a grassy understorey and would therefore require a greater APZ width.

A key benefit of an APZ is that it reduces radiant heat and the potential for direct flame contact on homes and other buildings. Residential dwellings require a wider APZ than sheds or stockyards because the dwelling is more likely to be used as a refuge during bush fire.

Subdivided land or construction of a new dwelling

If you are constructing a new asset, the principles of *Planning for Bushfire Protection* should be applied. Your Development Application approval will detail the exact APZ distance required.

Existing asset

If you wish to create an APZ around an existing asset and you require environmental approval, the Bush Fire Environmental Assessment Code provides a streamlined assessment process. Your Bush Fire Hazard Reduction Certificate (or alternate environmental approval) will specify the maximum APZ width allowed.

For further information on APZ widths see *Planning for Bushfire Protection* or the *Bush Fire Environmental Assessment Code* (available on the RFS website), or contact your local RFS Fire Control Centre.

STEP 4. DETERMINE WHAT HAZARD REDUCTION METHOD IS REQUIRED TO REDUCE BUSH FIRE FUEL IN YOUR APZ

The intensity of bush fires can be greatly reduced where there is little to no available fuel for burning. In order to control bush fire fuels you can reduce, remove or change the state of the fuel through several means.

Reduction of fuel does not require removal of all vegetation, which would cause environmental damage. Also, trees and plants can provide you with some bush fire protection from strong winds, intense heat and flying embers (by filtering embers) and changing wind patterns. Some ground cover is also needed to prevent soil erosion.

Fuels can be controlled by:

1. raking or manual removal of fine fuels

Ground fuels such as fallen leaves, twigs (less than 6 mm in diameter) and bark should be removed on a regular basis. This is fuel that burns quickly and increases the intensity of a fire.

Fine fuels can be removed by hand or with tools such as rakes, hoes and shovels.

2. mowing or grazing of grass

Grass needs to be kept short and, where possible, green.

3. removal or pruning of trees, shrubs and understorey

The control of existing vegetation involves both selective fuel reduction (removal, thinning and pruning) and the retention of vegetation.

Prune or remove trees so that you do not have a continuous tree canopy leading from the hazard to the asset. Separate tree crowns by two to five metres. A canopy should not overhang within two to five metres of a dwelling.

Native trees and shrubs should be retained as clumps or islands and should maintain a covering of no more than 20% of the area.

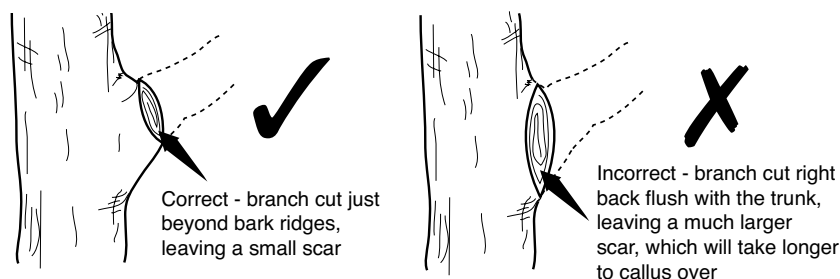
When choosing plants for removal, the following basic rules should be followed:

1. Remove noxious and environmental weeds first. Your local council can provide you with a list of environmental weeds or 'undesirable species'. Alternatively, a list of noxious weeds can be obtained at www.agric.nsw.gov.au/noxweed/;
2. Remove more flammable species such as those with rough, flaky or stringy bark; and
3. Remove or thin understorey plants, trees and shrubs less than three metres in height

The removal of significant native species should be avoided.

Prune in accordance with the following standards:

- Use sharp tools. These will enable clean cuts and will minimise damage to the tree.
- Decide which branches are to be removed before commencing work. Ensure that you maintain a balanced, natural distribution of foliage and branches.
- Remove only what is necessary.
- Cut branches just beyond bark ridges, leaving a small scar.
- Remove smaller branches and deadwood first.



There are three primary methods of pruning trees in APZs:

1. Crown lifting (skirting)

Remove the lowest branches (up to two metres from the ground). Crown lifting may inhibit the transfer of fire between the ground fuel and the tree canopy.

2. Thinning

Remove smaller secondary branches whilst retaining the main structural branches of the tree. Thinning may minimise the intensity of a fire.

3. Selective pruning

Remove branches that are specifically identified as creating a bush fire hazard (such as those overhanging assets or those which create a continuous tree canopy). Selective pruning can be used to prevent direct flame contact between trees and assets.

Your Bush Fire Hazard Reduction Certificate or local council may restrict the amount or method of pruning allowed in your APZ.

See the *Australian Standard 4373 (Pruning of Amenity Trees)* for more information on tree pruning.

4. Slashing and trittering

Slashing and trittering are economical methods of fuel reduction for large APZs that have good access. However, these methods may leave large amounts of slashed fuels (grass clippings etc) which, when dry, may become a fire hazard. For slashing or trittering to be effective, the cut material must be removed or allowed to decompose well before summer starts.

If clippings are removed, dispose of them in a green waste bin if available or compost on site (dumping clippings in the bush is illegal and it increases the bush fire hazard on your or your neighbour's property).

Although slashing and trittering are effective in inhibiting the growth of weeds, it is preferable that weeds are completely removed.

Care must be taken not to leave sharp stakes and stumps that may be a safety hazard.

5. Ploughing and grading

Ploughing and grading can produce effective firebreaks. However, in areas where this method is applied, frequent maintenance may be required to minimise the potential for erosion. Loose soil from ploughed or graded ground may erode in steep areas, particularly where there is high rainfall and strong winds.

6. Burning (hazard reduction burning)

Hazard reduction burning is a method of removing ground litter and fine fuels by fire. Hazard reduction burning of vegetation is often used by land management agencies for broad area bush fire control, or to provide a fuel reduced buffer around urban areas.

Any hazard reduction burning, including pile burns, must be planned carefully and carried out with extreme caution under correct weather conditions. Otherwise there is a real danger that the fire will become out of control. More bush fires result from escaped burning off work than from any other single cause.

It is YOUR responsibility to contain any fire lit on your property. If the fire escapes your property boundaries you may be liable for the damage it causes.

Hazard reduction burns must therefore be carefully planned to ensure that they are safe, controlled, effective and environmentally sound. There are many factors that need to be considered in a burn plan. These include smoke control, scorch height, frequency of burning and cut off points (or control lines) for the fire. For further information see the RFS document *Standards for Low Intensity Bush Fire Hazard Reduction Burning*, or contact your local RFS for advice.

7. Burning (pile burning)

In some cases, where fuel removal is impractical due to the terrain, or where material cannot be disposed of by the normal garbage collection or composted on site, you may use pile burning to dispose of material that has been removed in creating or maintaining an APZ.

For further information on pile burning, see the RFS document *Standards for Pile Burning*.

In areas where smoke regulations control burning in the open, you will need to obtain a Bush Fire Hazard Reduction Certificate or written approval from Council for burning. During the bush fire danger period a Fire Permit will also be required. See the RFS document *Before You Light that Fire* for further details.

STEP 5. TAKE MEASURES TO PREVENT SOIL EROSION

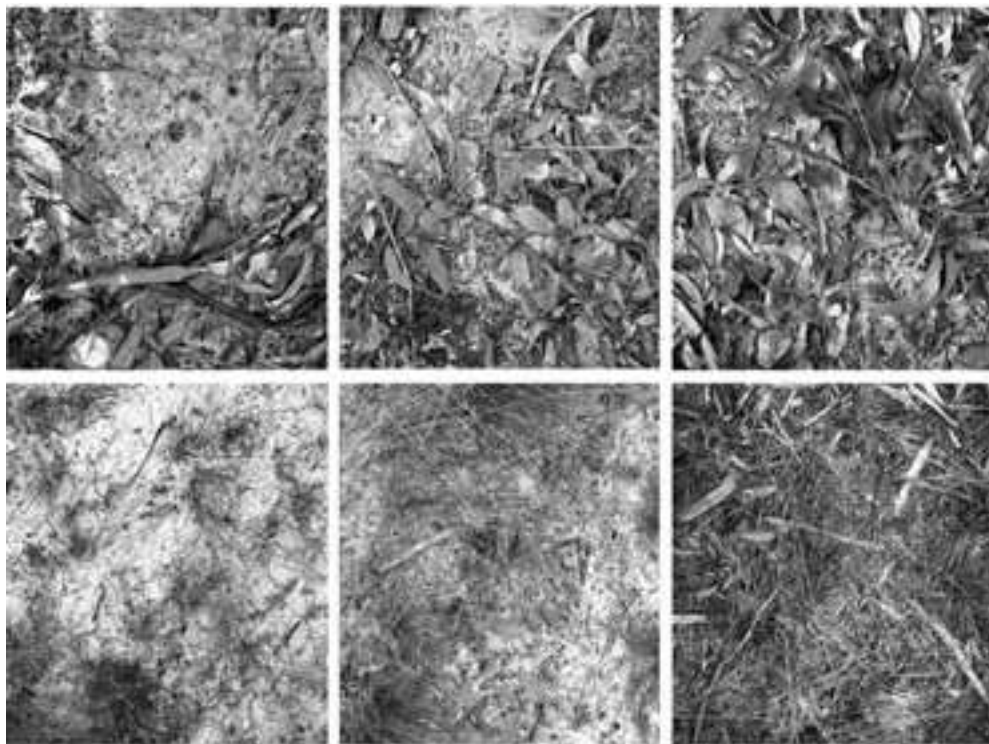
While the removal of fuel is necessary to reduce a bush fire hazard, you also need to consider soil stability, particularly on sloping areas.

Soil erosion can greatly reduce the quality of your land through:

- loss of top soil, nutrients, vegetation and seeds
- reduced soil structure, stability and quality
- blocking and polluting water courses and drainage lines

A small amount of ground cover can greatly improve soil stability and does not constitute a significant bush fire hazard. Ground cover includes any material which directly covers the soil surface such as vegetation, twigs, leaf litter, clippings or rocks. A permanent ground cover should be established (for example, short grass). This will provide an area that is easy to maintain and prevent soil erosion.

When using mechanical hazard reduction methods, you should retain a ground cover of at least 75% to prevent soil erosion. However, if your area is particularly susceptible to soil erosion, your Hazard Reduction Certificate may require that 90% ground cover be retained.



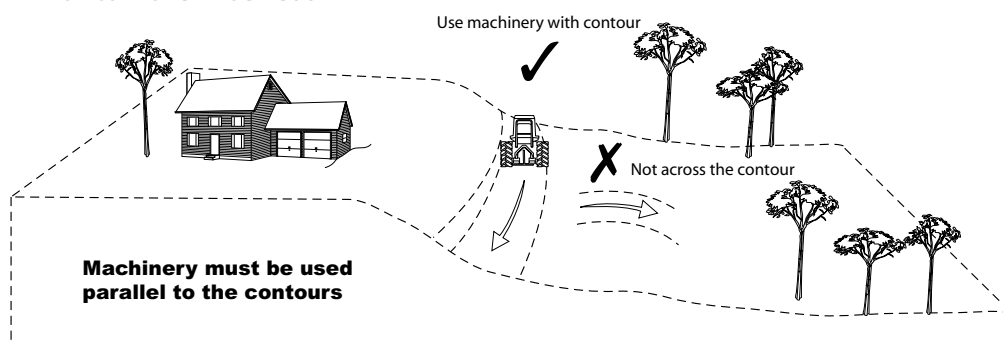
50%

75%

100%

Ground Cover

To reduce the incidence of soil erosion caused by the use of heavy machinery such as ploughs, dozers and graders, machinery must be used parallel to the contours. Vegetation should be allowed to regenerate, but be managed to maintain a low fuel load.



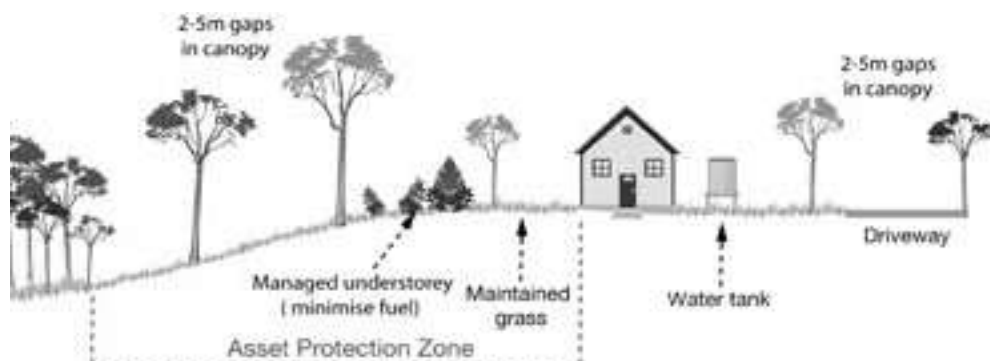
STEP 6. ONGOING MANAGEMENT AND LANDSCAPING

Your home and garden can blend with the natural environment and be landscaped to minimise the impact of fire at the same time. To provide an effective APZ, you need to plan the layout of your garden to include features such as fire resistant plants, radiant heat barriers and windbreaks.

Layout of gardens in an APZ

When creating and maintaining a garden that is part of an APZ you should:

- ensure that vegetation does not provide a continuous path to the house;
- remove all noxious and environmental weeds;
- plant or clear vegetation into clumps rather than continuous rows;
- prune low branches two metres from the ground to prevent a ground fire from spreading into trees;
- locate vegetation far enough away from the asset so that plants will not ignite the asset by direct flame contact or radiant heat emission;
- plant and maintain short green grass around the house as this will slow the fire and reduce fire intensity. Alternatively, provide non-flammable pathways directly around the dwelling;
- ensure that shrubs and other plants do not directly abut the dwelling. Where this does occur, gardens should contain low-flammability plants and non flammable ground cover such as pebbles and crush tile; and
- avoid erecting brush type fencing and planting “pencil pine” type trees next to buildings, as these are highly flammable.



Removal of other materials

Woodpiles, wooden sheds, combustible material, storage areas, large quantities of garden mulch, stacked flammable building materials etc. should be located away from the house. These items should preferably be located in a designated cleared location with no direct contact with bush fire hazard vegetation.

Other protective features

You can also take advantage of existing or proposed protective features such as fire trails, gravel paths, rows of trees, dams, creeks, swimming pools, tennis courts and vegetable gardens as part of the property's APZ.

PLANTS FOR BUSH FIRE PRONE GARDENS

When designing your garden it is important to consider the type of plant species and their flammability as well as their placement and arrangement.

Given the right conditions, all plants will burn. However, some plants are less flammable than others.

Trees with loose, fibrous or stringy bark should be avoided. These trees can easily ignite and encourage the ground fire to spread up to, and then through, the crown of the trees.

Plants that are less flammable, have the following features:

- high moisture content
- high levels of salt
- low volatile oil content of leaves
- smooth barks without “ribbons” hanging from branches or trunks; and
- dense crown and elevated branches.

When choosing less flammable plants, be sure not to introduce noxious or environmental weed species into your garden that can cause greater long-term environmental damage.

For further information on appropriate plant species for your locality, contact your local council, plant nurseries or plant society.

If you require information on how to care for fire damaged trees, refer to the Firewise brochure *Trees and Fire Resistance; Regeneration and care of fire damaged trees*.

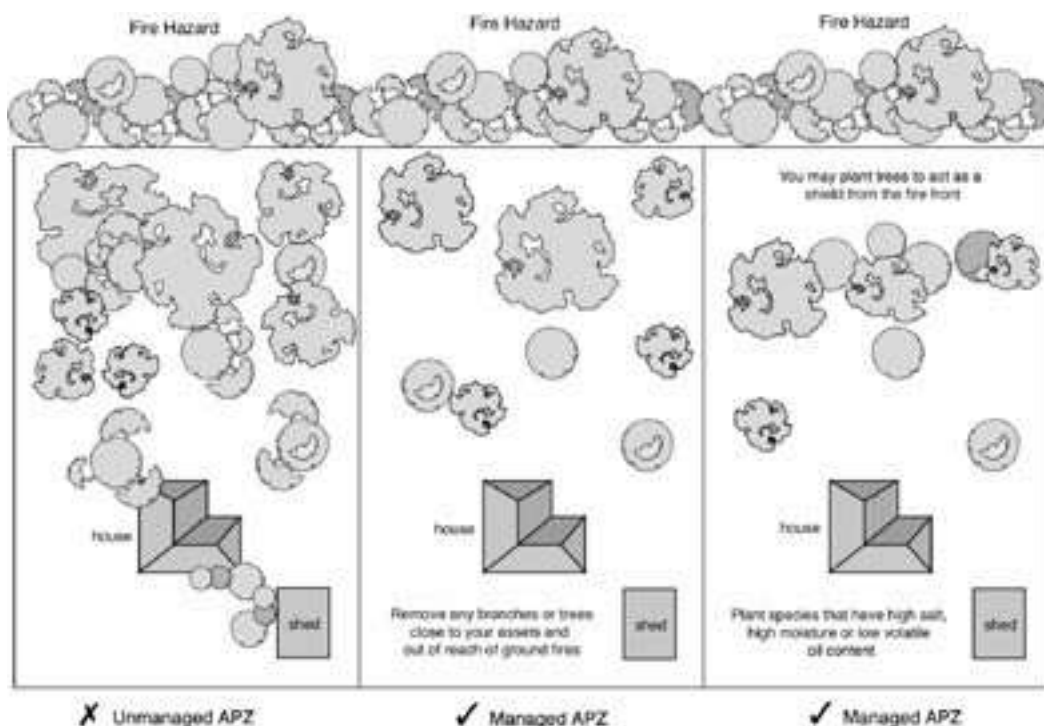
WIND BREAKS

Rows of trees can provide a wind break to trap embers and flying debris that could otherwise reach the house or asset.

You need to be aware of local wind conditions associated with bush fires and position the wind break accordingly. Your local RFS Fire Control Centre can provide you with further advice.

When choosing trees and shrubs, make sure you seek advice as to their maximum height. Their height may vary depending on location of planting and local conditions. As a general rule, plant trees at the same distance away from the asset as their maximum height.

When creating a wind break, remember that the object is to slow the wind and to catch embers rather than trying to block the wind. In trying to block the wind, turbulence is created on both sides of the wind break making fire behaviour erratic.



HOW CAN I FIND OUT MORE?

The following documents are available from your local Fire Control Centre and from the NSW RFS website at **www.rfs.nsw.gov.au**.

- Before You Light That Fire
- Standards for Low Intensity Bush Fire Hazard Reduction Burning
- Standards for Pile Burning
- Application Instructions for a Bush Fire Hazard Reduction Certificate

If you require any further information please contact:

- your local NSW Rural Fire Service Fire Control Centre.
Location details are available on the RFS website or
- call the NSW RFS Enquiry Line 1800 679 737
(Monday to Friday, 9am to 5pm), or
- the NSW RFS website at **www.rfs.nsw.gov.au**.

**Produced by the NSW Rural Fire Service, Locked Mail Bag 17,
GRANVILLE, NSW 2142. Ph. 1800 679 737**

www.rfs.nsw.gov.au